An Address
ON
MEDICINE AND SCIENCE IN THE MODERN UNIVERSITY.

Delivered at the Opening of the New Medical School of the University of Toronto on Oct. 1st, 1903,

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PRESIDENT LOUDON, DR. REEVE, LADIES AND GENTLEMEN,—Believe me, it is a difficult thing for a stranger, even at your invitation, to address you on an occasion like the present. So many significant events crowd in upon him and time for reflection is needed to weld into a connected whole the impression he would wish to offer to you. Not that the growth and doings of this University have not been followed and watched with interest by us in the old country; on the contrary, your activity has been felt not only as a matter of mutual congratulation but as a spur to arouse us to effort in our own similar pursuit of educational aims. But the stranger coming among you necessarily feels the shortcomings of his acquaintance with the details of these academic enterprises you have taken in hand. One advantage, however, is his. His view, gained from a distance, necessarily has freedom and truth of perspective that may give it a value in your eyes. Some things lose by perspective. Some things large when close to hand dwindle when viewed from afar. Not so Canada. The perspective given by the width of the Atlantic is but an appropriate setting across which to view her greatness and her far-reaching activity. And this event, this academic celebration, this *dies festus* in your University to-day, retains from afar off all the significance of a great event. It loses no tittle of its dignity and import when viewed across the ocean from the crowded turrets of the older Cambridge or the hoary spires of Oxford. It shines, I assure you, like a beacon to the new university whose buildings are as yet unfinished on the hill above the port of Liverpool.

Coming from a region where history is long and the land little, to this where written history is short and the expanse of land incomparably great, one realises how relative is size. And in regard to the event of to-day the largeness of this country rises in my thought, not as a matter of mileage, but that with you, more than with us in the old country, the size of to-morrow is vaster than the size of to-day. Each step of progress here, more than with us, has to be measured by its ample consequences in a more rapidly widening horizon of the morrow. These new laboratories have a field already demanding them and a still larger lies before them in an immediate and historic future.

PURSUIT OF SCIENCE A CIVIC DUTY.

Biology is the study of life in regard especially to growth and to organisation. Every medical man is a biologist, and as a biologist it may be but natural if I regard to-day's event from a biological standpoint and the community as an organism and the university as a living organ essential to the healthy life of the community. Science—especially medical science—is growing in importance to the community. We must have organisation in science as in industry. This University to-day makes provision of first-rate importance for the organisation of medical and allied sciences in the region which centres here. Capacity to rear and to support men constitutes the extent of a country, and population is the biological measure of the social organism. The ceaseless energy of the race has begun to plant a great population in this land. Growth, great and rapid, is inevitably before it. The growth of nations, as of individuals, requires the vigilance of guiding hands. Growth for it to take its course rightly towards perfection requires that provision for the security and expansion of the liberal arts and sciences forerun rather than halt behind the actual requirement of the hour. Not only for their direct utilitarian service. They form a whetstone for man's most universal tool—his intellect. Also a discipline for character in the pursuit of truth for its own sake. Scientific truth, when found, has often proved unpalatable to man—as when it dethroned him from his fancied seat at the centre of the whole perceptible universe, a universe he had imagined simply subservient to his needs; or again, as when it taught him that instead of being a creature altogether apart from brute creation there are flesh and blood bonds between himself and them. Regardless of its cost to his cherished fancies man strives for scientific truth. And, as the old Greek said, this purpose puts him further from the brutes and nearer to the gods. In nurturing science I would urge that a community cultivates more than mere utility. And even with regard to mere utility, as the fields of knowledge fall ripe under the ceaseless husbandry of the world's thought, those who would join in the great reaping and not only glean where others reaped before them must cultivate for themselves. To do this requires more than the devotion of individuals. It requires the intelligent coöperation of whole groups of individuals. Organised scientific inquiry becomes in advanced countries a conscious aim of the community as a community.

THE VARIOUS WORKERS.

That society may draw due benefit from wells of natural knowledge three kinds of workers have to stand side by side. First, the investigator who, pursuing truth, extends discovery with little or no reference to practical ends. He constitutes the fountain-head of the knowledge that is for distribution. Other hands may reap the harvest but his set and rear the seed. After the investigator comes the teacher. To him it belongs to diffuse the knowledge won. This honourable and difficult task receives its best reward in seeing the small spiritual beginnings of a pupil widen into the spiritual beginnings of a master. Thirdly, there is the applier of natural knowledge. His part consists in making scientific knowledge directly serve practical needs. It is this work which to the popular idea often represents the whole of science, or all of it that is commonly termed "useful." The practical results of this work are often astounding to those ignorant of the steps by which they have been reached. The greatest of these steps, however, is usually the first one, made in the laboratory of the investigator. These three co-workers are co-equal in the priesthood. Science and the applications of science are one growth, united together even as the fruit and the tree. The proper hearthstone round which the community should group these labourers, labouring for a common end, is the university. There the sacred flame of learning is fed from many sides by many hands.

THE BIOLOGIST AS CITIZEN.

It is sometimes said that pursuit of science renders a man deaf to the appeals of practical life—that it tends to withdraw him from the everyday interests of the people. That I do not believe of any science, certainly not of biology and the medical sciences. Why, from their very outset these subjects draw the mind towards study of an organisation the most complex and the most perfect it can examine. The ancient simile that our old school classic, Livy, drew between the human body and the body politic, the State, has not lost but won significance as the centuries have run. The achievement of the microscope has been the discovery that living things, whether plant or animal—all living things of more than minutest size—are commonwealths of individually living units. These cells, as they are called, are living stones that build the house of life. In that house each stone is a self-centred individually-living microcosm individually born, breathing for itself, feeding itself, consuming its own substance in its living, and capable of, and destined for, an individual death. Each cell lives by exchanging material with the world surrounding it. In other words, its bulk depends on its surface. Hence surface increasing as the square, and volume as the cube, cell size is circumscribed by tiny limits—microscopic limits. Had the dependence been greater than it is and the average size of the cell less and too small for resolution and discovery by the microscopes of 70 years ago it is hard to imagine where biology would stand to-day. For two generations every biologist has been accustomed to think in terms of the cell theory. Every shred of the body he knows as an intricate interlacement, embodying coöperation and mutual support of associate thousands of individually existent cells. Division of labour has gone on and with it differentiation of structure: while this group of cells combines with its own inner life some special function

subservient to the needs of the great commonwealth as a whole, another group is specialised for another duty again subservient to the general needs. Each organism, with all its solidarity, each one of ourselves here, is built up of living myriads. Each such organism consisted at the outset but of a single cell and from that in his life's growth have arisen the countless myriads composing him to-day. The blood relationship is close between all the cells of each one individual body. The cells of our nerves, of our muscles, of our lime-hardened bones are all blood relations through one common ancestor. Yet so far has specialisation of these unit lives gone on, so far does function reflect itself in microscopic form, that there is greater likeness between my nerve cells and the nerve cells of a fish than between my nerve cells and my own muscle cells, despite the blood relationship between these latter. And in the commonwealth of cells that constitute each one of us goes forward day long, night long, as in the body politic, the birth of new units to replace the ones outworn, the subordination of many individual purposes to one, the sacrifice and destruction of the individual life for the benefit of the many.

Trained in study of such an organism surely the biologist and the medical man will be the last to underrate the importance of organisation to the community for the common weal. Therefore I am rejoiced, but I am not surprised, that it is your Faculty of Medicine which to-day in its public-spiritedness erects and installs these fine laboratories, this potent addition to the organisation of your community for its activities in medicine and biological science. I would also, as a friend among you, offer you my congratulations on the consolidation of your two schools of medicine. Union means not only greater strength but the more effective application of that strength.

TWO ASPECTS TO MEDICINE.

I need not extol medicine to this assembly. Many of her votaries are here; I venture to count myself as one. But to-day the relation toward her of education is a matter on which our minds are naturally set. Am I wrong if in regard to this it rises saliently to me that from the educational standpoint medicine, like Janus of old, in a good sense, bears a double face? On the one hand, she is an empiric. She has learned to cure by what the comparative psychologist calls the "method of trial and error"—conquests over sickness acquired purely as the result of experience without help either from *a priori* or from inductive reasoning. And great and glorious is the rôle of her achievement on these lines. Of her humanitarian triumphs probably still—certainly until a generation ago—the greater share is assignable to this part. The use of quinine in malaria, the curative effects of the iodides and various metals, the discovery of chloroform and other as anæsthetics—these and the names of a long line of famous physicians from the Renaissance down to some as justly famous as the past and with us now to-day suffice to certify the inestimable gifts that medicine as empiric has given to suffering mankind. This face of medicine may well wear a garland.

In her other aspect medicine is not an empiric but a scientist. Who will refute me if I assert that medicine is as well an art as a science? Somewhere it is said that woman is the last thing man will ever civilise. So the scientific aspect, the male face of two-visaged medicine, thinks of that female face, the empiric, with whom his lot is linked. He feels sometimes that his other half is the last thing science will ever render wholly rational. By dint of patient toil he improves her practice, showing her a reason now and then. No sooner that than she is off on a fresh flight into the inexplicable and he must cudgel his brains anew to find her a fresh logical position.

That feminine ever-youthful trait in medicine has to the student an undying charm. But on the whole the countenance of medicine has of recent years for the student become masculinely severe. The masculine head of medicine has indeed become the larger. Hydrocephalic even in appearance, yet is it filled not with water but with reasoned facts. All this development proceeds in the main from certain data acquired in the century just passed. The chemist, in discovering that all the million-sided chemical diversity of the perceptible universe is composed from a few—some 70—substances, therefore called elemental, discovered also that living matter instead of containing elements different from and subtler than those of the dead world, consists of just a few of the commonest of these same ones. Further, the doctrine of the indestructibility of matter was demonstrated in a new form—namely, as the indestructibility of energy, and the convertibility of any one form of energy into other forms. Thus dead and living matter have become united as subject material for study. It became really possible to consider the living body as a chemical and physical machine, a machine to which the laws of chemistry and physics can be applied. But this scientific progress in medicine, fruitful of benefit to the community, lays on the community a burden of obligation.

HISTORICAL SKETCH.

The empirical part of medicine is at once the most easy and the most difficult thing to teach. The preparation for learning it requires but little training in other subjects. Its facts lean on nothing but themselves.

With the scientific part of medicine it is different. That is based upon initiatory studies. Medicine, historically traced, we find first drawing help from the simplest and nearest at hand of these adjuvant studies. First she bent to the study of the gross form of the parts and organs of the body. The gross form of these is significant chiefly where they are machinery for application of mechanical powers. The greater part of the corporeal machinery is, however, not destined for such work, but has its purpose in processes, chemical, thermal, and electrical, to which—marvellous appendage—mentality is adjunct. Medicine in the course of the seventeenth and eighteenth centuries sucked dry for the most part what the study of the gross form of the body's parts could yield her. She then turned to the study of microscopic form—examined what Bichat first named the *tissues*, the fabric of the body. In so doing she came upon a great generalisation, the cell doctrine, discovering an essential and visible similarity of microscopic structure in all that has life, differentiating it from all which has not life.

But even before the advent of the cell theory medicine had begun to ask of chemistry what it could give her. With the discovery of oxygen and of the nature of combustion the links between biology and chemistry began to be tightly drawn. The young Oxford physician, Mayow, had performed the fundamental experiments on respiration and had discovered oxygen more than a century before Priestley and Lavoisier. But the time was not ripe until the stupendous work of Lavoisier had founded modern chemistry. The cell theory was from the first not only morphological but physiological. It meant, for the application of chemistry to biology, that the chemistry of the body or of one of its organs was a chemistry resultant from a thousand tiny living furnaces, individual seats of oxidation, deoxidation, polymerisation, hydrolysis, and what not. Not only that, but the living laboratory of the cell itself manufactures even the medium in which the cells themselves exist: the saps and juices of the body. And we are beginning to know, thanks to pathology, that every species of animal produces an internal medium specific to itself. Further, your distinguished physiologist here, Professor Macallum, who has done so much to reveal the distribution of the chemical elements within the cell, tells us that the internal medium which the cells of even the highest animal forms produce, as appropriate for themselves, still approximates in its salts to the water of the ancient geologic seas in which their ancestry arose and still reveals in fact the composition of that ancient ocean. In that respect these living cells, with all their flux of change, have been more durable and constant even than ocean itself. The contrast brings home to us a deep distinction between dead matter and living—the latter a moving equilibrium, gaining stability from the very motion of itself.

The bonds between medicine and chemistry with Schwann and Pasteur were drawn still tighter by their discoveries concerning those subtle influences named "ferments." Pathology, the study of these processes of the body in disease, even more than physiology as yet has drawn help from this part of modern chemistry. If the processes of health are in fact the resultant of the due coöperation of ten million little foci of healthy chemical action in the body, the processes of disease are similarly divisible and have to be traced to the unhealthiness of certain of these minute centres of activity. How extreme is the importance of chemistry to modern medicine no single statement can perhaps emphasise so well as this—that is, I believe, acknowledged on all hands—that in virtue of his chemistry a chemist, Louis Pasteur, during the latter half of last century was able to do more to alleviate the diseases of mankind and animals than any single physician of his time. To the physicist also medicine has made appeal. From him she has got understanding of the body's heat, the basis of the knowledge of fever; she has learned the intricacies of

the mechanism of the eye and refined methods of examining that organ and of remedying many of its defects; the laws that govern the circulation of the blood, and the subtlest means of detecting the forces liberated in the working of the nervous system. In some cases, as sciences grow, their discoveries seem to sunder them the further one from another. In my belief that merely shows they are at the outset of their careers. To-day we find physics and chemistry converging and conjoining within a field of physical chemistry. It early became convenient to have a specific name for living material wherever found. The name given was "protoplasm." It might have been better to call it "x" or "y" so far was it in many respects an unknown quantity. Instead of looking forward to this material as a chemical entity we incline now to regard it rather as a *field* for chemical action satisfying certain particular conditions. Probably discoveries regarding these conditions will fall to the physical chemist, perhaps in a future very near at hand. Probably such discoveries will be among the most valuable that medicine has yet received from any source.

MEDICAL EDUCATION.

I have said enough to remind us how interlocked with science medicine has become. She is applying sciences to her own problems and they form a vast capital fund from which she can draw wealth. To give instruction in this part of medicine, to turn out men trained in it, is now one of the duties of a medical school. The earnest student has a right to expect such training from his *alma mater*. But for it the requirements are importantly different from those that suffice as an introduction to empiric medicine. In the first place, as Pasteur said, we cannot have the fruit without the tree. For scientific medicine the student must perforce be thoroughly trained in his sciences before he can really grasp instruction or truly profit from his medical teaching. One of the aims of his instruction in empirical medicine is to teach him to observe for himself. So in his instruction in scientific medicine one of its aims is to enable him to apply science for himself. How small a fraction of all the realities of medical practice can be met in the few years of preparation of the student in the clinic as he passes through it in his school career. His teacher knows that well and uses the cases there as types whereby the principles of medicine can be fixed as a beginning. The rest must be accomplished by the man himself as his life's work. The more necessary that the man go forth from his school equipped, not only with the present applications of science to disease, but so possessed of root principles of the sciences adjunct to medicine that he may grasp and intelligently use the further developments of scientific medicine after he is weaned from his instructors and the school. That is a way to obtain enlightened progress in professional practice. What truer safeguard can a man have, alone it may be, and isolated from the centres of knowledge—what truer safeguard can he have against all the pseudo-scientific quackeries of the day than some real knowledge of the principles of the sciences along whose lines the discoveries of medicine must develop?

BURDEN ON TEACHERS.

Therefore it is that the burden of obligation falls heavy nowadays upon the teaching resources of every faculty of medicine worthy of the name. There is, in the first place, the burden of increased intellectual labour. For both the learner and teacher is this true. To seize the proffered assistance of these great and complex sciences is not always easy. These studies are more difficult than those that were needed once and they take longer to acquire. The mere instrumentarium of modern chemistry and physics as applied to medicine, and of physiology and pathology and bacteriology and of hygiene of itself suffices to bring conviction of the increased difficulty and longer training due for these studies now preparatory to medicine. Further, these initiatory studies have become vastly more costly than was all that formerly was required. Experts have to be found who can devote themselves heart and soul and undividedly to their particular subject. Laboratories have to be erected and equipped and on a scale that makes them a distinct feature of the modern world. Those that we see now here are models of their kind; wise foresight has planned them; public-spirited enterprise has constructed them accordant with that plan. Nor does the achievement end with their erection. The laboratories and their equipment are but the factory and the plant; both fail in their purpose if they halt for sustenance. And beyond that the likeness does not go. The factory, once started, if it be wanted, can expect to pay, to support itself. Not so the laboratory. The laboratory is both a school of instruction and a school of thought. Well, no higher instruction can be expected unaided to pay the expenses it involves; it can only do so at the expense of those who come to learn, and that is to put its teaching beyond the reach of all but the wealthier few. And the instruction is costly, for it has to be practical.

Another source of expense is that the laboratory has not only to distribute knowledge but to manufacture it. The duties of a university do not begin and end with the disciplinary and didactic. Besides schools of instruction they must be schools of thought. To be this latter the laboratory must pursue research. Even for the welfare of the class-teaching this is essential. Instructive lectures may be given by men of ability the whole of whose knowledge is second-hand, but it is doubtful whether the real life of science can be fully felt and communicated by one who has not himself learnt by direct inquiry from nature. Nothing more augments the teacher's power of impressive and incisive teaching of a subject than to have faced problems in it himself as an original inquirer. And after rudiments have been once fairly acquired there is for good students no training equal to that given by following even a small research under an experienced leader.

SCHOOL OF THOUGHT.

So, truly, does the laboratory become a school of thought. Your laboratories are arranged with admirable provision for research. The student should enter on his study of a natural science through the portal of its fundamental experiments. The attitude his mind thus takes is the true one—the only true one—for further insight into the subject. Too often humanistic studies at school have tended to kill the natural philosopher within the child—to destroy that innate curiosity for facts, the healthy heritage of childhood. He leaves school a little bookman. Even as to the phenomena of nature he has been insensibly led to ask for statements upon authority rather than to turn his own senses and observation to the phenomena themselves. To learn a science or to acquire an art resting upon sciences the first thing to do is to look at the fundamental facts for ourselves. Our great teachers of medicine teach upon this plan. They teach where they learned, not in the library, but at the bedside of the sick. In laboratories such as those raised here for pathology and physiology students can learn these sciences as medicine is learned in the hospital ward, by direct inquiry into nature. The teachers you give them are men who have won widely recognised distinction as themselves direct inquirers into nature. Worthy students will appreciate this double boon their *alma mater* gives them—the means of learning at first hand those secrets of nature which lie at the root of their craft's skill, and to learn them under guidance by men who excel in unravelling such secrets.

ENGLISH ACTION.

Only by enabling men to continue their learning after their teaching is over can we secure the greatest advantage any educational system can afford. Your laboratories here will encourage post-graduate work. We look with keen interest to the researches that will flow from them. No subjects offer finer fields for research than do the progressive studies, physiology, pathology, and hygiene, to which your new University buildings are consecrated. And of the functions of a laboratory, research is not the least costly. We in the old country find that. Our central Government has done little to support research. Our nation, proud of its success in things practical, has been prone to despise the abstract and the theoretical. We do so foolishly; we do so at our peril. Behind all practical application there is a region of intellectual action to which, though our practical men have contributed little, they owe the whole of their supplies. Theory, if a goose, is the goose of the fairy tale that lays the golden eggs. No more such eggs if once you let her die. To speak of theoretical knowledge slightingly is for the lips of the fool. The value of abstract research to a country is becoming more widely acknowledged among us than it was. Sir John Brunner said the other day at Liverpool that there was no better investment for a business man than the encouragement of scientific research and that every penny of the wealth he possesses has come from the application of science to commerce and to manufacture. And we find that munificent citizens have, and do, come forward among us and meet by their individual gifts the pressing needs in this respect of our community at large.

NEW ERA DAWNING.

But we welcome a new era dawning on us. Liverpool, Birmingham, Sheffield, and other great centres begin to regard the local university as an institution entitled to support from the public means—for instance, by subsidy from public rates. Such subsidies can be used also for studies which do not come within allotment from the smaller subsidy from the central Government—medicine, for instance. Proud of the young universities—to which yours of Toronto is a time-honoured veteran—communities and local governments are encouraging research within our universities. They do not expect such research to be able to pay its own way, but they recognise that indirectly it does pay the community that gives it a home. They feel it a duty which they owe themselves. Is not the university a part of their own life, and is not research a part of the university's life blood? They feel it a right due to their own higher selves. It stimulates progress. Supported by the large-handed sympathy of the community and the local government, it means quicker advance, both material and mental, it means invention, and it means medical discovery. And *qui facit per alium facit per se* is a motto worthy of a State.

USES OF LABORATORIES.

What, then, are finally the uses of these laboratories now opened by your University? They will assist in training men for various honourable callings, especially for that most ancient one of medicine. They will assist, no doubt, also to render life by practical applications of science superficially still more different from what it was only a short generation ago. They will assist to bring home and to distribute to your community treasures of knowledge from all the quarters of the globe. They will themselves assist—and it is a thought dear to a high-spirited people—to add to the sum total of the treasures of knowledge of the whole human race. "Noblesse oblige" appeals to chivalrous nations as well as to chivalrous individuals.

But their highest office seems to me, perhaps, not even these high ones but a more difficult still. Genius cannot by any community, however wealthy and powerful, be made to order. In biblical language it is the gift of God. All a community can do toward obtaining it, be our riches and willingness a thousandfold what they are, is to ensure the rare and glorious plant a meed of freedom, light, and warmth for blossoming upon our soil. Who can doubt that in this population here genius exists—not sown, it is true, broadcast, for nowhere is it thus—yet existent, scattered up and down? This it is for the community to foster, to discover. By help of these finely built and complete laboratories this much in one direction can be done. The problem to which a wise country turns is the discovery less of things than of men. By these laboratories, adequately supported, your community can create opportunity for the exercise of powers which come from sources within itself but are utterly beyond its power to produce at will. Their loftiest function is creation of this opportunity. For that aim the studies in them must be followed with no single narrow technical purpose but must be wide of scope and full of access to every rank of student. So shall these laboratories prove a corner-stone for the upbuilding of a temple of knowledge and a touchstone for the best ore of intellect within the bounds of this great land.

CHARING CROSS HOSPITAL.—On Thursday, Dec. 10th, a dance will take place at the Whitehall Rooms of the Hôtel Métropole, under the patronage of Princess Louise, the Duchess of Argyll, President of the Hospital, the Duchess of Devonshire, the Duchess of Sutherland, the Duchess of Marlborough, and the Duchess of Portland, with the object of raising a fund for the renewal of the floors of the old wards of Charing Cross Hospital. The music will be supplied by the string band of the Royal Engineers.

MOUNT VERNON HOSPITAL FOR CONSUMPTION.—On Oct. 27th Lord Zetland, President of the hospital, formally opened the newly erected east wing. This hospital, which is situated on Hampstead Heath, contains 145 beds. The present extension has been erected at a cost of £16 000 and the cost of the whole building amounts to £43,500, or £300 a bed. Of the 45 beds provided in the new wing the committee does not feel justified in opening more than 25 at present as it still needs a sum of £10,000 to defray the cost of the extension, furnishing, and other charges.

The Bradshaw Lecture

ENTITLED

SOME OBSERVATIONS ON TUBERCULOSIS OF THE NERVOUS SYSTEM.

Delivered at the Royal College of Physicians of London on Nov. 5th, 1903,

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MR. PRESIDENT AND GENTLEMEN,—My first duty is to acknowledge the honour done to me in asking me to give this lecture and to express the hope that I may prove worthy of it. I propose to address my remarks (1) to the forms which the tuberculous infection may assume in the nervous system; (2) to the mode of infection of the brain and meninges; (3) to some points in diagnosis connected with spinal puncture; and (4) to the possibility of recovery. I have to express my obligations to my colleagues on the staff of the Leeds General Infirmary for permission to use the records of 114 fatal cases which have occurred during the past 20 years in that institution. I must also thank Dr. Ursula Chaplin for much able help in laboratory work. To Professor S. Delépine and Professor G. Sims Woodhead, Mr. G. Dean of the Jenner Institute, and Dr. Steegmann of the Royal Commission on Tuberculosis I am indebted for some virulent cultures of the tubercle bacillus and to the last named also for valuable references.

FORMS WHICH THE TUBERCULOUS INFECTION MAY ASSUME IN THE NERVOUS SYSTEM.

The various forms of tuberculosis of the nervous system consist of tuberculosis of the dura mater, tuberculous meningitis in its more general and limited forms, tuberculous masses in the brain and cord, and a possible miliary tuberculosis of the brain itself. An old question mentioned by Rilliet and Barthez[1] many years ago has been much discussed lately as to whether it is possible to have a tuberculous meningitis without the presence of tubercles, or at any rate with only a minimal tubercle formation. Such an affection has been compared to certain benign tuberculous affections of joints and serous membranes and the name of tuberculous meningopathy has been suggested to distinguish it from the ordinary fatal form of tuberculous meningitis. Poncet,[2] Patel,[3] Sepet,[4] and Galliard[5] are the chief exponents of this view and the subject has been well summarised by Bouclier[6] in a recent Lyons thesis. Among the 114 fatal cases at the Leeds General Infirmary there are 14 in which thickening or exudation is noted at the base of the brain without visible tubercles. Cerebral symptoms were present before death in 12 of these cases and abundant tuberculous lesions elsewhere in the body in all. I think it is fair to conclude that tubercle formation was at its minimum or even absent, at any rate in some of these cases, and that the changes noted were a manifestation of the tuberculous infection and were responsible for the symptoms. It has been suggested that the poisons of the tubercle bacillus may cause this more exudative or serous form of meningitis. Armand Delille has separated a poison which produced in his experiments productive tissue changes. On the other hand, the poisons of the tubercle bacilli injected intrameningeally may cause rapid death, as in Martin and Vandreuver's experiments.[7] Sicard[8] states that the tubercle bacillus and *its toxin* can produce exudation and granulations. In three instances of intrameningeal injection of measured quantities of

[1] Rilliet and Barthez: Maladies des Enfants, 1854.
[2] Poncet: Bulletin de l'Académie de Médecine, 1902.
[3] Patel: Gazette Hebdomadaire, December, 1902.
[4] Sepet: Médecine Moderne, 1902.
[5] Galliard: Société Médicale des Hôpitaux, 1902.
[6] Bouclier: Thèse de Lyon, 1902.
[7] Martin and Vandreuver: Société de Biologie, 1898.
[8] Sicard: Ibid., 1898.

tuberculin I found no local effects but progressive wasting ending in one guinea-pig in death. More information is obviously wanted about this benign form of tuberculous meningitis and its anatomical counterpart.

Occasionally in an ordinary tuberculous meningitis the lesion is relatively a very limited one. Such cases have been recorded by Saenger[9] and in one case in my list the lesion was limited to one Sylvian fissure. But the limited meningitis described by French authorities (Chantemesse,[10] Combe,[11] Monnier,[12] and others) consists of a great thickening with tubercle formation over a limited portion usually of the motor cortex. It is said to occur in phthisis and its symptoms, as Combe points out, differ from those of ordinary tuberculous meningitis. There are nine cases in my series in which such localised thickening over a limited area of the cortex was noted. The most marked case was in a boy, aged seven years. The plaque occurred over Broca's convolution and difficulty in speech was noted during life. In this case there were miliary tubercles in the lung and in three other cases phthisis. This localised lesion may be produced experimentally (Sicard) and I have myself seen an instance of it.

Tuberculous masses in the brain are not infrequent. They were present in 33 of the 114 cases. In 15 they appeared to be recent and but little antecedent to the existing meningitis. In only 17 of the 33 cases were they multiple, a smaller proportion than usual. The largest number present in one case was four. In Middleton's case[13] there were 20, in Homen's case 12,[14] in West's case 12,[15] and in Henoch's case 12.[16] In size they vary from that of a millet seed to that of an orange and larger. They are mostly well defined and shell out with ease. Minute tubercles are often visible in the bed and on their surface, making recognition easy. They are often surrounded by an area of vascular engorgement but as a rule there is no definite capsule. They vary in consistency and when laid open display a yellowish and caseating centre and a peripheral growing zone made up of recent tuberculous tissue. Tubercle bacilli may or may not be found in this peripheral zone. As a rule, these masses show little tendency to break down and still less to calcify. They develop mostly in the grey matter and when they are situated more deeply they are often in relation with a process of the pia mater. Their favourite sites are the cerebellum, the pons, the crura, the cortex, and the central ganglia. Except in the pons, the medulla, and the cord, where they are usually surrounded by nervous tissue, they most often project on to the surface. The infection of the cerebro-spinal fluid is thus easily brought about as Ziegler[17] points out. Tuberculous tumours, indeed, sometimes give rise to no symptoms until this infection occurs. In 23 of my 33 cases there was present a tuberculous meningitis. In one of the cases there was a loose tuberculous tumour in the fourth ventricle. I have seen a section prepared from it by our pathological curator, Mr. J. A. Cairns Forsyth, and although there are no giant cells in the peripheral zone and no tubercle bacilli have been found, I do not doubt its nature. There were other tuberculous lesions in the body. Tuberculous tumours of the spinal cord are not common. Dr. A. G. Barrs had this drawing made of one and I have brought another specimen. It came from a child, aged three years, and there were other similar masses in the brain. Aniel and Rabot,[18] Müller,[19] Luce,[20] Gourand,[21] and Hunter[22] have recently related interesting cases of these tumours of the spinal cord.

In one of my cases an abscess possibly tuberculous was found in the pons along with tuberculous masses in the brain. Delafield and Prudden[23] state that these tuberculous masses may break down into abscesses. There is at present a beautiful specimen on view in St. George's Hospital museum, which shows multiple tuberculous masses breaking down into abscesses containing tubercle bacilli. The relatively rare tuberculous tumours of the dura mater are nearly invariably multiple and grow from its inner vascular surface in the posterior fossa or from the falx cerebelli. One of the two specimens from our museum came from a child, aged six years, with tuberculous cavities in the lungs, caseous bronchial and mesenteric glands, and intestinal ulceration. Miliary tubercles of the dura mater were noted twice, once by Dr. T. Wardrop Griffith, to whom I am indebted for many valuable comments upon the necropsies made by him.

[9] Saenger: Münchener Medicinische Wochenschrift, 1903.
[10] Chantemesse: Thèse de Paris, 1884.
[11] Combe: Revue de la Suisse Romande, 1898.
[12] Monnier: Thèse de Paris, 1899.
[13] Middleton: THE LANCET, July 15th, 1893, p. 137.
[14] Homen: Neurologisches Centralblatt, 1892.
[15] West: Transactions of the Pathological Society, 1891.
[16] Henoch: Vorlesungen über Kinderkrankheiten, 1890.
[17] Ziegler: Pathologische Anatomie, 1901.
[18] Aniel and Rabot: Lyon Médical, 1898.
[19] Müller: Deutsche Zeitschrift für Nervenheilkunde, 1898.
[20] Luce: Münchener Medicinische Wochenschrift, 1903.
[21] Gourand: Société d'Anatomie, 1902.
[22] Hunter: Brain, 1902.
[23] Delafield and Prudden: Pathological Anatomy, 1902.

MODE OF INFECTION OF THE BRAIN AND MENINGES.

It is admitted that a complete examination almost invariably reveals an older tuberculous focus somewhere in the body. In only six of my cases was no such focus found and here the notes are incomplete. Under congenital tuberculosis I need only refer to Demme's well-known and unique case[24] of a tuberculous cerebellar tumour in an infant, aged 23 days. If our knowledge of the infection of the meninges and brain were at all complete, which is by no means the case, we should know where the infecting focus is, what brings about the mobilisation of the tubercle bacillus from it, what channels the bacillus travels by, and what determines its settling down in any given area in the brain. The actual infecting focus may exceptionally be small and easily overlooked and it is obvious that the oldest lesion is not necessarily the infecting one.

A direct infection through the nose is believed to be possible, as in Demme's case quoted by Cornet.[25] A spread from tuberculous disease of the ear may take place; it is not quite direct because the ear would appear to be infected through the lymphoid tissue of the nasopharynx. Some recent experiments and observations tend, however, to show that the tonsils and the lymphoid tissue in the nasopharynx do not contain tubercle bacilli (at least virulent bacilli) as often as has been urged (Macfadyen and Macconkey[26] and Ito[27]). Grimmer,[28] who has worked at the subject, puts down tuberculosis as the cause of middle-ear disease in from 65 to 70 per cent. in children under five years and 16 per cent. above that age. There was obvious ear disease in ten of my 114 cases which were mostly admitted under the care of Mr. H. Secker Walker and Mr. A. L. Whitehead. Although the ear disease was not proved to be tuberculous it is interesting to note that in seven of these cases there was another old possibly infecting focus in the body and in another two the state of the glands is not noted. Experimentally I believe that it is very difficult to infect the brain and meninges through the accessory cavities. Again, in spinal caries I take it that a general tuberculous meningitis is of infrequent occurrence. There are only four such cases in my series. In two the organs are said to be normal, in one the mesenteric glands are said to be enlarged, and in the other the glands are not noted at all. Miliary tubercles on the inner surface of the dura mater were noted in one case. In Dr. T. Churton's case of a large tuberculous tumour in the frontal lobes the spread from the bone to the dura mater and the brain seemed obvious, unlike a rather similar case recorded by Curtis and Booth[29] where the spread was said to be from within. Poli[30] suggests that the dura mater forms an important barrier against the spread from a neighbouring focus. In a single experiment devised to test this view I quite failed to confirm it.

The lungs were normal in 28 cases. It has been proved (as stated by Boinet[31]) that tubercle bacilli may pass through the lungs without leaving an obvious recognisable lesion. A miliary tuberculosis of the lungs was noted in 54 cases. 18 cases presented the lesions of phthisis, together with a miliary lesion in nine of them. Phthisis is said to be the most common cause of tuberculous meningitis in the adult. Personally I have had very little experience of this complication in obvious phthisis, although during the past four years I have had the opportunity of watching the course of phthisis in a considerable number of cases in connexion with the Leeds Tuberculosis Association. One case which I saw with Mr. B. Wainman I have reason to remember as I failed to assign the quite early vomiting to its proper cause. Among the cases of phthisis there was a child,

[24] Demme: Archiv für Kinderheilkunde, 1881.
[25] Cornet: Nothnagel's Specielle Pathologie und Therapie, Band xiv.
[26] Macfadyen and Macconkey: Brit. Med. Jour., 1903.
[27] Ito: Berliner Klinische Wochenschrift, 1903.
[28] Grimmer: Laboratory Reports of the Royal College of Physicians of Edinburgh, 1903.
[29] Curtis and Booth: Annals of Surgery, 1893.
[30] Poli: Archives Internationales de Laryngologie, &c., 1903.
[31] Boinet: Traité de Médecine, Brouardel and Gilbert, tome viii.

aged six years, with one large cavity and several small ones. There are four other cases in children with recent cavitation which are not classed as phthisis.

Joints and bones were affected in 23 out of the 114 cases—viz., the hip in 13, the ankle in three, the knee, the elbow, and the wrist each in one case, and in four cases two joints were involved. The hip disease was old in two cases. Recently Courtin and Lourde[32] have described tuberculous meningitis in quite early hip disease. The small amount of tuberculosis noticed in the body in some of these joint cases was striking. The bones affected were the spinal column in four cases and the frontal bone and the ribs each in one case. In four cases the kidneys were the seat of extensive tuberculous disease. It was associated in one case with pulmonary and laryngeal phthisis, in another with hip disease, and in a third with ear disease. The generative organs, no doubt not always examined, are noted as diseased in two cases, once in a man with a tuberculous testis and vas deferens and once in a woman with tuberculous Fallopian tube disease and tuberculous peritonitis. Simmond's statistics[33] show an extraordinarily high percentage. Thus in 60 cases of tuberculous meningitis one-third had genital tuberculosis. 35 of the 60 were men and here one-half were similarly affected. Ordinary tuberculous peritonitis was noted in eight cases and intestinal ulceration, mostly recent, in 28 cases. In another case there was extensive tuberculous ulceration of the colon and the rectum. Widenmann[34] reported a curious case of tuberculous meningitis in a man with primary ulceration of the intestine. In two of my cases there was an abscess about the vermiform appendix.

The relation of the lymphatic glands to tuberculous meningitis is of the first importance but unfortunately my records are distinctly incomplete in this respect. The lymphatic system constitutes a most important defence, especially in the child, against a general tuberculous infection. Manfredi and Fresco have been able to demonstrate even in so susceptible an animal as the guinea-pig the important rôle which the lymphatic glands play. There is a difficulty in connexion with these glands—viz., that they may contain virulent tubercle bacilli and yet appear as healthy to the naked eye. The glands which stand in the most direct relation to tuberculous meningitis are the mediastinal. Haushalter and Fruhinsholz[35] have recently found old and caseating lesions in the pretracheo-bronchial glands in 63 out of 67 cases of tuberculous meningitis. It is a particularly striking fact that in as many as 40 cases (35 with miliary tuberculosis) no old focus was present other than the adenopathy. This close relationship can only be connected with the all-important fact that the lungs constitute the port of entry of the tubercle bacillus in the large majority of these cases. Carrière[36] believes that the mesenteric glands may be the infecting focus in a goodly number of cases of tuberculous meningitis. It should be remembered that the infection of the mesenteric glands in a retrograde fashion from the mediastinal glands is obviously an anatomical possibility. We are obliged to appeal to this retrograde infection to explain some features in the spread of experimental tuberculosis. This mode of infection is more likely to be effective if there is any pressure upon the thoracic duct by enlarged and caseating mediastinal glands.

More puzzling still than some features connected with the infecting focus is the mobilisation of the tubercle bacillus from it. It has been suggested that tuberculin may bring about this effect. Rutimeyer's case[37] of phthisis in which tuberculous meningitis appeared at the close of a course of tuberculin treatment is very suggestive. I am aware that Cornet in his admirable work on tuberculosis will have none of this explanation. Simmonds[38] has seen cases of genital tuberculosis in which tuberculous meningitis ensued within from a few weeks to months after marriage. The occurrence of tuberculous meningitis shortly after an operation is a still more important matter. I have found eight cases of this class among the 114 cases. The interval between the operation and the meningeal infection forcibly reminds one of the incubation period in experimental tuberculosis. This interval has varied from one week to six or seven weeks; at least one case must be excluded as the interval is too short. The operations were upon the cervical glands, the ankle and the hip joints, also a laparotomy, &c. An absolutely satisfactory explanation is not forthcoming. Some have thought that tubercle bacilli have been liberated in the field of operation and have then gained access into the blood current. No doubt this view should receive practical attention. In the parallel case where an early phthisis blazes out after an operation into a fatal activity, of which I have recently seen two cases, one with Dr. Gordon Sharp, an explanation appears to me to be at hand. It may be attributed to an actual inhalation infection of hitherto sound parts of the lung brought about by the deep inspirations caused by the anæsthetic. Rhodonacki[39] has also recently published two cases of a fatal aggravation of the pulmonary lesion after operation. It has been suggested in cases of tuberculous meningitis following rapidly upon injury, as in a recent case by Mollard (quoted by Bouclier[40]), that the actual mechanical concussion may have led to escape of tubercle bacilli from the infecting focus but this explanation is not by any means convincing. There appears to be no satisfactory explanation of the occurrence of the disease at an interval after measles, whooping-cough, &c.

The route by which the bacilli travel from the infecting focus to the meninges or brain is far from satisfactorily worked out. It is either by the blood or the lymphatics. A striking fact in connexion with tuberculous meningitis is the marked alteration in the blood-vessels. In one case under the care of Dr. Barrs the Sylvian artery was blocked. Similar lesions have been recorded by several observers. In Cruchet's case[41] of at least a temporary recovery from tuberculous meningitis there were abundant old tubercles about the posterior cerebral and basilar arteries, the latter being almost occluded. In laying open the branches of the Sylvian arteries in one case I could see tubercles in the vessel walls. Sicard[42] has shown experimentally that the meninges may be infected, though with some difficulty, by injecting tubercle bacilli into the carotid artery; a pulmonary tuberculosis, however, is the common result unless the jugular veins are tied. Cornil, Bezançon, and Griffon[43] have studied the changes in the brain after injecting tubercle bacilli into the carotid artery of rabbits. No bacilli were found in the arterioles but they had multiplied in the perivascular sheaths which were filled with large swollen cells. The process illustrates according to the authors the development of tubercle at the expense of the lymphatic sheath. On the other hand, Sicard states as the result of his investigations that it is impossible to infect the meninges through the lymphatic system. These changes in the vessels, along with the experimental evidence, make it appear almost certain that the tubercle bacilli arrive by way of the blood stream. If they arrive in numbers they produce an ordinary general tuberculous meningitis, if few in numbers or perhaps attenuated they give rise to tuberculous tumours or even a meningitis *en plaque*—viz., an expression of a less virulent infection. Occasionally, and then I think only in the pons, the tuberculous tumour may look as if it had been formed, or was forming, by the coalescence of several foci of infection. Broca and Souques[44] endeavour to explain the frequency of tuberculous tumours in the paracentral lobule (and Dr. Churton[45] some years ago recorded a well-marked case of the kind) by the rich vascular supply and the slowing down of the blood current here. It is curious that the lesions of the ordinary tuberculous meningitis should usually focus themselves chiefly about the middle cerebral artery and its branches, whereas tuberculous tumours are more frequently found in the distribution of the basilar and posterior cerebral arteries.

EXAMINATION OF THE SPINAL FLUID.

Undoubtedly a most important addition to our resources in diagnosis consists in the examination of the cerebro-spinal fluid obtained by Quincke's spinal puncture. During this year I have examined the fluid from five cases of tuberculous meningitis. In one case, that of a boy, aged eight years, in the infirmary, whom I saw by the kindness of Dr. C. M. Chadwick, there was a pleural effusion present when the

[32] Courtin and Lourde: Journal de Médecine, 1903.
[33] Simmond: Münchener Medicinische Wochenschrift, 1901.
[34] Widenmann: Charité Annalen, 1899.
[35] Haushalter and Fruhinsholz: Archives de Médecine des Enfants, 1902.
[36] Carrière: Gazette des Hôpitaux, 1902.
[37] Rutimeyer: Berliner Klinische Wochenschrift, 1891.
[38] Loc. cit.
[39] Rhodonacki: Brit. Med. Jour., 1902.
[40] Loc. cit.
[41] Cruchet (continuation of Rocas's case): Revue Neurologique, 1902.
[42] Sicard: Presse Médicale, 1900.
[43] Cornil, Bezançon, and Griffon: Société d'Anatomie, 1898.
[44] Broca and Souques: Ibid., 1891.
[45] Churton: Brit. Med. Jour., 1891.

cerebral symptoms supervened. Ten cubic centimetres of clear fluid were drawn off. It contained a faint cloud of albumin and in the deposit lymphocytes alone were found and no tubercle bacilli. A small quantity of fluid, less than two cubic centimetres, injected subcutaneously tuberculised a guinea-pig. Another case, seen with Mr. H. J. Roper of Leeds, occurred in a boy, aged seven years, who had just passed through an attack of scarlet fever. The urine contained albumin and the vomiting in the very early days suggested a uræmic origin for the symptoms. On the second occasion on which I saw him there was a slight facial paralysis and the nature of the case seemed obvious. The clear spinal fluid contained very little albumin; the deposit showed many polymorphonuclear cells but no tubercle bacilli were found. The inoculation test gave a positive result. In a third case, that of a girl, aged four years, whom Mr. Norman Porritt of Huddersfield asked me to see, lymphocytes were present but no tubercle bacilli were found in the fluid. The inoculation test also gave a positive result. In another infirmary case the fluid was obtained after death. Albumin was present and lymphocytes were found in the deposit but no tubercle bacilli. A quite recent case occurred in a lad, aged 16 years, whom I saw with Mr. D. McCann and who was transferred to the infirmary under my care. He was punctured at my request by Mr. G. W. Watson, our resident medical officer, on three separate occasions and 15, 35, and 13 cubic centimetres respectively of spinal fluid were drawn off. On the second occasion the pressure (four and a half inches in terms of the fluid) was estimated by Krönig's apparatus. Death occurred about the seventeenth day. There was miliary tuberculosis of the meninges, the peritoneum, and the upper lobe of the left lung. The bronchial glands were caseating and the mesenteric glands were enlarged. The spinal fluid was clear with a few small flocculi in it on two occasions and on the third it was more straw-coloured. It was slightly alkaline and contained a considerable amount of albumin (3 per 1000 Esbach). The specific gravity was 1006; the cellular elements were few but consisted solely of lymphocytes. Some of the fluid was incubated at 37° C. after Langner's method and flocculii were withdrawn from time to time and examined but no tubercle bacilli were found. One cubic centimetre was inoculated upon serum agar and glycerine agar respectively. About 2·5 cubic centimetres were injected subcutaneously, two cubic centimetres intraperitoneally, and about one cubic centimetre intrameningeally into guinea-pigs. Three tests were made with a view of comparing the results, as there has been some discussion about the best method. (As yet there has been insufficient time to obtain results from the culture and inoculation tests.) The cryoscopic point was 0·53, as against 1·03 obtained from some hydrocephalic fluid which was in my laboratory. The chlorides (one estimation) were 0·177 per cent. as against 0·223 (five estimations) of hydrocephalic fluid. The permeability test was negative. It will be seen from the above that I have never once been able to find the tubercle bacillus in the deposit. In four of the five cases lymphocytes were alone found and in one only polymorphonuclear cells. The inoculation test gave a satisfactory result in three out of the four cases and is as yet incomplete in the fourth case. The points of importance in the examination of the spinal fluid are the presence of the tubercle bacillus and lymphocytes in the deposit and the results of the inoculation test. I look upon the cryoscopic and permeability tests as of small significance.

The finding of the tubercle bacillus in the deposit is by far the best test for clinical purposes. It requires little time. It has given positive results in the hands of various observers up to from half to three-fourths of the cases. I look upon my want of success as a matter of accident. The inoculation test is very valuable but the disadvantage is the delay. Slawyk and Manacatide [46] recommend the injection of four cubic centimetres intraperitoneally. Hellendall [47] advises lumbar inoculation as requiring less fluid. No doubt negative results may be due to the use of too small a quantity of fluid but less quantities than those named above have answered my purpose. It is well, however, to be on the safe side. I take it that, if an acid- and alcohol-fast bacillus resembling the tubercle bacillus is found in the deposit from the spinal fluid obtained from a case with symptoms of meningitis, the nature of that meningitis is determined even should the inoculation test subsequently give a negative result. Therefore I do not quite see the reason for Chipault's [48] hesitation in certainty of diagnosis in a case subsequently to be referred to. The tubercle bacillus may be cultivated from the spinal fluid. Slawyk and Manacatide recommend the use of a fairly large quantity of the fluid for this purpose. Langner (quoted by Hellendall [49]) incubates the fluid at 37° C. and in eight days there is a rapid multiplication of the tubercle bacillus. In one of the cases where I tried this method I obtained a considerable streptococcus growth which I looked upon as a terminal infection. Much has been written lately about lymphocytosis in tuberculous meningitis. It certainly badly misled in Rendu and Gerand's case.[50] Nobécourt and Voisin,[51] Simon,[52] and others have found it in cases of tuberculous tumours without meningitis. They look upon it as a sign of irritation of the membranes. If any polymorphonuclear cells are present as well as lymphocytes a differential count should be made as recommended by Achard and Laubry.[53] Leri[54] pointedly remarks that if the clinical and cyto-diagnosis are not in agreement the cyto-diagnosis is not always right. This applies to one of my cases though fortunately the inoculation test settled it. The study of the spinal fluid obviously yields results which are of the first importance in the differentiation of the various forms of meningitis. If aspiration is avoided and the fluid allowed to escape slowly there is no danger in it in meningitis and I see no reason why it should not be used as a routine method in suspected cases of these diseases.

RECOVERY FROM TUBERCULOUS AFFECTIONS OF THE NERVOUS SYSTEM.

Very occasionally one has the good fortune to meet with recovery from symptoms of grave organic disease of the brain where a tumour has been suspected and syphilis can with almost certainty be excluded. I have notes of two such cases treated in the Leeds Infirmary and possibly of a third. Recovery is often incomplete, blindness remaining. Some great authorities (such as Gowers [55] and others) say that in tuberculous tumours arrest is not uncommon. Presumably some of the recoveries referred to above may be of this nature. It is therefore interesting to inquire what pathological evidence is forthcoming in favour of this view. In two cases from the records of the Leeds Infirmary with healed phthisis there was in one a nodule in the left lenticular nucleus which Dr. Barrs regarded as a healed tuberculous lesion and in the other a calcareous mass of the size of a pea attached to the dura mater. Sufficient proof as to the exact nature of these lesions is not forthcoming. I have only been able to find in literature a few cases of recovery from tuberculous tumours. In Williamson's case [56] there was a small yellowish mass which had caused Jacksonian epilepsy four years previously, in Ashby's case [57] there was a small cyst with cretaceous walls, in Bristowe's case [58] a hard mass was present in the cerebellum, and in Kahlmeyer's case [59] a cicatrix was found in the cerebellum in a man who had cerebellar symptoms 11 years previously. In the first three cases there were other masses in the brain and the patients died from tuberculosis and in the fourth case there was phthisis. The quiescent lesion showed a dense fibrous capsule in the first three cases. Oppenheim [60] says that these tumours may calcify and then become encapsuled, as if encapsulation were, as it probably is, the most important event. Calcification is nearly always a very limited process in the mass and other encephalitic lesions, as Oppenheim points out, may calcify. By the kindness of the authorities of the London Hospital museum I have looked through a relatively large number of tuberculous tumours but I cannot say that I have seen any which could be regarded as definitely healed. The very slender possibility of recovery from a tuberculous tumour is no doubt established by the above-named cases, but, as Ashby [61] well points out, we must set off against this chance the possible development of other masses in the brain or

[46] Slawyk and Manacatide: Berliner Klinische Wochenschrift, 1898.
[47] Hellendall: Deutsche Medicinische Wochenschrift, 1901.
[48] Chipault: Neurologie Chirurgicale.
[49] Loc. cit.
[50] Rendu and Gerand: Société Médicale des Hôpitaux, 1901.
[51] Nobécourt and Voisin: Société d'Anatomie, 1903.
[52] Simon: Revue Mensuelle des Maladies de l'Enfance, 1903.
[53] Achard and Laubry: Société Médicale des Hôpitaux, 1901.
[54] Leri: Archives de Médecine des Enfants, 1902.
[55] Gowers: Diseases of the Nervous System, vol. ii.
[56] Williamson: Medical Chronicle, 1896.
[57] Ashby: Diseases of Children.
[58] Bristowe: Brain, 1891.
[59] Kahlmeyer: Berliner Klinische Wochenschrift, 1890.
[60] Oppenheim: Die Geschwülste des Gehirns, 1896.
[61] Loc. cit.

the child may die from tuberculous meningitis or other form of tuberculosis.

In considering recovery from tuberculous meningitis a distinction must be drawn between the ordinary more generalised form and the limited meningitis *en plaque*. Monnier[62] and others strongly recommend operation for the latter when there are localising symptoms. Gee,[63] in his article on Tuberculous Meningitis, in 1868 graphically described recovery as a matter of science. Many great clinicians have related cases of recovery but up to recently the absolute proof was wanting unless the patient died later, when anatomical demonstration of the healed lesion was provided (Rilliet, Politzer, Barth,[64] Cadet de Gassicourt,[65] Carrington,[66] and others, and more recently Jannsen[67] and Rocaz and Cruchet[68]). Another proof, but not so satisfactory, is the presence of choroidal tubercles controlled by a skilled ophthalmologist (Dujardin-Beaumetz[69] and more recently Thomalla[70]). The presence of an unmistakeable tuberculous lesion such as phthisis elsewhere in the body, as occurred in the cases of Cuffier (quoted by Chantemesse[71]) and Chappet (quoted by Bouclier[72]), makes the diagnosis almost certain. Mr. E. Ward had a case in the Leeds Infirmary with tuberculous disease of the ankle in which the symptoms of meningitis developed. The child recovered, though unfortunately blind, and is still living.

Bacteriological proof of the nature of the meningitis has been provided in the cases of recovery recorded by Freyhan,[73] Henkel,[74] K. Barth,[75] Gross,[76] and Winkler and Gohl (quoted by Chipault[77]). Tubercle bacilli were found in the spinal fluid in all these cases. The diagnosis in the cases of Rocaz (subsequently anatomically proved by Cruchet[78]), Mottard (quoted by Bouclier[79]), and Sepet,[80] rests on the Courmont-Arloing serum reaction, the value of which is not by any means universally accepted. In his Bordeaux Thesis, 1903, Parrenin states that in October, 1902, the cases of Thomalla, Henkel and Barth were living and well, but that Gross's case had early phthisis; Freyhan's case was quite well when last heard of in 1899.

In inquiring under what conditions recovery has taken place it is only necessary to mention large doses of iodide of potassium, creasote, &c., without confounding cause and effect. Spinal puncture, though possibly of value in a simple meningitis (Hirsch[81]) is of quite doubtful utility in tuberculous meningitis. In the cases of Freyhan, Barth, and of Winkler and Gohl puncture was performed once in each, whereas in the cases of Henkel and Gross the puncture was repeated three times. Chipault[82] is inclined to attribute some value to it, but only a small quantity of fluid was drawn off in the case to which he refers. In Gross's case the patient felt much relieved after it. In my case referred to above, where three punctures were made, 63 cubic centimetres of fluid in all were drawn off but with no real effect. Excess of fluid is not responsible for all the threatening symptoms in tuberculous meningitis, as Peron[83] points out in his experimental investigations. Experimentally Martin[84] noted an improvement in a rabbit after withdrawing two cubic centimetres of fluid but it was only temporary. Some of my experiments were made with this object but mostly very little fluid was found. Operations have been undertaken for the relief of this disease by Lannelongue and Keen, quoted by Barlow,[85] Ord and Waterhouse,[86] Parkin,[87] Paget, Kendal Franks,[88] and others. A case under the care of Dr. Churton and Mr. A. W. Mayo Robson[89] has been quoted by some authorities as a possible recovery from tuberculous meningitis, although neither of these authors described it as such. I was resident medical officer at the time this girl was in the Leeds Infirmary and she attended my out-patient room with epilepsy for several years previously to her death which occurred last year. She was trephined on account of focal symptoms which it was thought might be due to abscess secondary to ear disease. The case was obscure and occurred during the influenza epidemic of 1889–90. In her subsequent history she contracted syphilis but never showed any manifestation of tuberculosis.

Notwithstanding the above-mentioned remarkable recoveries from severe tuberculous meningitis, the prognosis must still be looked upon for practical purposes as hopeless. If a benign type of disease really exists systematic examination of spinal fluid should bring it to light. With such a prognosis before us prophylaxis is worthy of the closest attention. The danger which a careless phthisical patient is in his own home has been placed beyond doubt (Cornet,[90] Coates,[91] and others). This danger specially menaces susceptible young children who crawl about the floor stirring up infected dust. The tubercle bacillus is inhaled and a potential infecting focus is established in the bronchial glands. Dieudonné[92] has actually found tubercle bacilli on the hands of children in phthisical homes. Clinical evidence has also furnished some striking examples (Variot[93] and others) in the same direction. The notification of phthisis with disinfection and the isolation in special hospitals of confirmed and careless consumptives (especially if there are young children in their houses) are indispensable steps in the prevention of tuberculous meningitis and general tuberculsis. I am glad to say that we are about to open a hospital of this kind in the centre from which I come.

The old adage that "prevention is better than cure" was never truer than in the case of acute miliary tuberculosis and tuberculous meningitis.

62 Loc. cit.
63 Gee: Reynolds's System of Medicine, 1868.
64 Barth: Société d'Anatomie, 1879.
65 Cadet de Gassicourt: Revue Mensuelle des Maladies de l'Enfance, 1884
66 Carrington: Transactions of the Pathological Society, 1887.
67 Jannsen: Deutsche Medicinische Wochenschrift, 1896.
68 Loc. cit.
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Presidential Address

ON

THE RELATIONS OF OPHTHALMOLOGY TO GENERAL MEDICINE AND SURGERY AND TO PUBLIC HEALTH.

Delivered before the Ophthalmological Society of the United Kingdom on Oct. 29th, 1903,

BY JOHN TWEEDY, F.R.C.S. ENG.,
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GENTLEMEN,—My first duty on occupying this position is to thank you for the great honour which you have conferred upon me by electing me President of this society. No one knows better than I that I owe this mark of distinction to your indulgent favour and not to any services which I have rendered, or can render, to the society. Be this as it may, I am deeply sensible that without your sympathy and goodwill it will be impossible for me to perform with any degree of efficiency the duties which you have intrusted to me. And I will at once put your compliancy to the proof. Upon my election I was somewhat disconcerted to find that it had been an unbroken custom of this society that the newly elected President should deliver an address. To the subtle suggestion that the time was come for establishing a precedent by omitting the address on this occasion our surgical secretary gently hinted that public opinion was not yet ripe for this new departure. Nevertheless, wishing to spare you the infliction of an address I at first thought that it might not be amiss if I culled some of the choicer thoughts from the addresses of past Presidents; but on reflection I thought it

was scarcely fair to take these gems of thought from their logical context and from their literary settings. At length a better alternative suggested itself—namely, that I should exhort all the members of the society to read or to re-read for themselves *all* the addresses of my predecessors. And indeed, seriously and in all earnestness, this is what I do recommend. There you will find some of the best thoughts of some of the wisest and most thoughtful men of our profession—Bowman, Hutchinson, Hulke, Hughlings Jackson, Power, Argyll Robertson, Nettleship, Swanzy, Critchett, and last in the order of time but not of merit, the late Dr. D. Little of Manchester. The mere enumeration of these names at once awakens agreeable and even hallowed memories and intimates the high character, purpose, and mission of the Ophthalmological Society. Among the past Presidents have been men not only foremost as ophthalmic surgeons in the three divisions of the kingdom but also two of the ablest and most accomplished of the general surgeons in this country; at least two who, in addition to their eminence as surgeons, enjoyed a considerable reputation as physiologists and one who stands almost pre-eminent not only in this country but throughout the whole medical world as a philosopher and physician. The presidency of Dr. Hughlings Jackson must always be remembered as one of the most critical and significant events in the history of this society and I venture to hope that in the near future another physician, not, perhaps, of Dr. Jackson's supreme merit—that is scarcely possible—but another physician, whether general or neurological, will succeed to this office. The various qualifications of the several Presidents of this society afford striking proof of a catholicity of opinion and liberality of corporate constitution which I hope will never be materially altered, limited, or abridged.

I may, perhaps, venture to remind the younger members that this society was formed 23 years ago by a small body of earnest men who were interested in the study and investigation of diseases of the eye, not merely as local affections but also in their relations to general disease and more particularly to disease of the cerebro-spinal system. These colleagues comprised ophthalmic surgeons, general surgeons, general physicians, and neurologists, and also physiologists to whom the eye must always be not only an interesting object of study but one of the most important avenues of knowledge. I trust that the society will never lose the impress of its early constitution and of its primary intention and endeavour. Soon will devolve upon the younger members of this society the duty of preserving and perpetuating the honourable traditions of the society unsullied and unimpaired. During the 23 years which have elapsed since the formation of this society many of the original members have already passed away, the last to leave us being one who was teacher, colleague, and friend to many here—George Lawson—of whom it may be well and truly said:—He was an upright man and one who feared God. In the course of nature few of those of us who still remain will survive another period of 23 years. Other times will bring other men and, perhaps, other ideas and other aspirations. In the growing complexity of social and professional relations temptations may present themselves to narrow the scope of the operations of the society. These temptations will, I hope, be strenuously withstood, not only by the enlightened policy of those who practise as ophthalmic surgeons but by the controlling influence of those general physicians and general surgeons whom it is hoped the society will never cease to attract.

Specialism, however, there must be. In the evolution of thought, in the increasing differentiation of social and economic functions, and in the consequent subdivision of labour, the growth of specialism is inevitable, and indeed necessary. The increase of knowledge, the elaboration of the means and methods of investigation, the more minute *differentia* of disease and diagnosis, and the complexity and potency for good or for evil of modern therapeutics, whether pharmaceutical or surgical, must eventuate in a specialisation of knowledge and in specialism in practice. This tendency is observable in the whole world of thought and action, in philosophy no less than in physiology, in politics and in economics, in architecture and in engineering no less than in medicine and surgery; but it behoves the more enlightened members of our profession to take care that our specialisation shall be the legitimate and reasoned outcome of the growth of knowledge, the separation, as it were, of a subject in order to develop it to the utmost. More than any other specialty, ophthalmology should be rational and rest upon the sure and firm basis of a wide and thorough general and professional knowledge. When we consider the importance of diseases of the eye, their incapacitating character, their grave economic effects, and when we observe the enormous difference between skilful and unskilful treatment, it must be obvious that the ophthalmic surgeon for the efficient discharge of his duties needs a good mental equipment, great intellectual and physical resources, and a sound professional training. He needs the courage and the dexterity of the surgeon combined with the learning and acumen of the physician. Doubtless there are few of us who even approach this ideal. But no one who does not keep this ideal standard of requirement constantly in view can be regarded as fulfilling his whole duty, either as an ophthalmic surgeon or as a good citizen.

The exigencies of modern life preclude most of those who practise as ophthalmic surgeons from also engaging in the actual practice of so-called general medicine and surgery, but we may all keep in intellectual touch with the developments of modern medicine and with the general progress of pathological knowledge and all that this implies. Ophthalmology is a subject at once so fascinating and so complex that there is always a danger that those who are attracted by it may specialise too soon and specialise too much. I fear that there is even within the ranks of the profession, and still more outside professional ranks, an undesirable disposition to split up practical ophthalmology into two parts, the optical and medico surgical. This disposition ought, I think, to be jealously resisted, not only in the interests of our Art but in the interests of the public health. The eye is not, as the mere optician is too apt to consider, only an optical instrument; it is a living organism, made up of the most elaborate and most highly differentiated structures in the body, in intimate and constant relation with the cerebro-spinal system, the blood-vessels, the lymphatics, and the other organic systems of the body, living the life of the whole body, observing its modes of nutrition, participating in its diseases, and responding to its various pathological manifestations. No one, then, can safely or intelligently deal with even the optical defects of the eye unless he has an adequate knowledge not merely of the structure and diseases of the eye but of the various relations of the eye to the whole organism.

It is a maxim of English law that every accused person shall be deemed innocent till he has been proved guilty. Now, in practical medicine we adopt, or ought to adopt, a maxim the reverse of this: Every organ should be considered unsound till it has been proved to be healthy. And of no organ is this so true as of the eye. We owe it, then, to ourselves, we owe it to this society, we owe it to the public, to maintain and to proclaim *hic et ubique* that ophthalmology is one and indivisible, an integral and essential part of the Science and Art of Medicine.

Gentlemen, this society has hitherto maintained a high ideal of knowledge, of technical skill and of professional achievement. I would fain hope that this ideal will never be lowered or tarnished; that with increase of years the society may increase in numbers, in importance, and in influence, and that after the lapse of another 23 years it will have attained a position in professional and public esteem even higher than that which it occupies to-day.

SOME POINTS IN THE OPERATIVE TREATMENT OF TUBERCULOUS DISEASE OF THE KNEE-JOINT.

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DURING the last three years of the cases of tuberculous disease of the knee-joint which I have had under observation I have had occasion to operate on some 14. Of these I have been able to follow the subsequent history in 11 and to estimate the result of the operative procedure. I wish to make these cases the subject of some remarks relative to one or two points in the operative treatment of the condition. The extent and localisation of the disease present in these cases when first seen are shown in Table I.

A summary of the table shows in three cases synovial membrane alone; in two cases synovial membrane, capsule,

and ligaments; in one case synovial membrane, with ulceration of the cartilage; in two cases femoral epiphysis alone; in two cases femur, tibia, capsule, and synovial membrane; and in one case tibia, patella, synovial membrane, ulceration of femoral cartilage and capsule. In six cases the disease was primarily synovial and in five cases it was primarily osseous. This proportion is not representative according to some surgeons whose experience of the disease has been large.

TABLE I.

No. of case.	Disease present when first seen.
1	Internal condyle of the femur, internal tuberosity of the tibia, synovial membrane.
2	Internal condyle of the femur.
3	External condyle, outer tuberosity of the tibia, synovial membrane.
4	Synovial membrane, erosion of cartilage covering the femur.
5	Synovial membrane.
6	Synovial membrane.
7	Synovial membrane, fibrous capsule, and ligaments.
8	Outer tuberosity of the tibia, patella, synovial membrane, capsule, and femoral cartilage.
9	Synovial membrane, capsule, and ligaments.
10	Outer part of the lower femoral epiphysis.
11	Synovial membrane.

Mr. Rushton Parker in his article in the "International Textbook of Surgery" says "practically always the primary focus is in the bones"; Mr. W. Watson Cheyne says the primary centre occurs "probably more frequently in the bone"; Mr. A. E. Barker says "in the very young the femur is most frequently the starting point, next the tibia, then the synovial membrane, lastly the patella; the older the patient the greater the probability of the synovial membrane being first affected." Whatever the actual proportion may be it is plain that in a large number of cases arthritis is secondary to osteomyelitis. It is in connexion with this that I wish to make the first point of my remarks—the great importance of the early recognition of tuberculous foci in the neighbourhood of the lower epiphysis of the femur and the great value of early surgical interference dealing with it. In Cases 2 and 10 this was the limit of the disease when first seen and I will briefly relate the history of each.

CASE 2.—The patient, a boy, aged three years, was brought to hospital in February, 1900. In the previous September the mother noticed that the right "knee" was swollen although the child complained only occasionally of slight pain. When examined the whole of the lower end of the femur was enlarged, particularly that part corresponding to the internal condyle. Pressure over the front of the condyle caused considerable pain. The depressions around the patella and the general outlines of the joint were normal. The diagnosis was tuberculous osteomyelitis in the lower femoral epiphysis. The limb was fixed on a Thomas's knee-splint of the ordinary pattern and the child attended the hospital as an out-patient but irregularly until the following November. The condition appeared to improve for a time, at any rate, and his symptoms became quiescent, but before admission in November the disease had insidiously invaded the joint. On Nov. 29th I performed an arthrectomy and found an irregular cavity in the internal condyle of the femur communicating with the joint and collateral destruction of the cartilage covering the inner tuberosity of the tibia; the synovial membrane was but little affected. The bone disease was removed with the spoon and the surface of the cavity was rubbed with liquefied carbolic acid; the synovial membrane was also removed by dissection. Two months later it was necessary again to open the joint; unhealthy granulation tissue was removed from the cavity in the internal condyle and carbolic acid was again used. The result—fibrous ankylosis—was satisfactory. The child developed tuberculous vertebral disease later from which he has also recovered.

CASE 10.—The patient, a boy, aged four years, was admitted to hospital on June 4th, 1902. For about a month he had complained of pain in his knee and the mother had noticed swelling for the same period. On admission the lower extremity of the right femur was enlarged, particularly the outer condyle; it was tender on handling and the skin covering it had a glazed appearance. The child was well nourished and had a healthy appearance. I decided to temporise and fixed the limb in plaster. By the end of three months it was evident that the disease was not quiescent, although the joint remained unaffected. I therefore decided to attack the disease in the epiphysis and did so on Sept. 20th. Some weeks after primary healing I removed some unhealthy granulation tissue by reopening the wound. The present condition is satisfactory and the joint remains sound and unaffected.

This case supplies a suitable commentary on the first. Had I in the first attacked the disease at once when it was confined to the epiphysis the child might now have a moveable instead of an ankylosed joint. I think it is sound surgery to deal with such a focus as soon as the diagnosis is clear without any temporising or treatment by rest and for the following two reasons: (1) it is difficult to estimate in any given case how near to the joint the disease has encroached and a short delay may just make the difference between escape and involvement of the joint; and (2) the focus is as a rule accessible and can be thoroughly dealt with.

The recognition of this condition of tuberculous epiphysitis is simple: the symptoms being enlargement of the femoral extremity usually chiefly affecting the inner part, with some swelling of the overlying soft parts; complaint of dull aching pain; tenderness on handling or percussing the epiphysis and a normal distinctness of the para-patellar depressions. Passive movement of the joint is at the same time either unattended by pain or causes this to only a slight degree. I ask the question whether treatment by rest and general hygienic measures is not attended by unfortunate results in a considerable number of cases similar to the above. The indications for early operative treatment in a tuberculous focus of this situation differ from the indications for such interference when the disease is in the neighbourhood of the upper epiphyseal line, the difference being chiefly due to anatomical considerations. The tuberculous focus in the neck of the femur can in most cases be reached only through the joint, though cases are on record where such a focus has been reached and eradicated through the great trochanter. On the other hand, the focus in the neighbourhood of the lower growing line is accessible without encroaching on the joint and favourably situated in regard to drainage, though perhaps in most cases the latter will not be called for.

Amongst hospital patients it is, unfortunately, the exception to meet with these cases before the joint is infected and Table I. illustrates the fact. This, no doubt, is to some extent due to delay on the part of parents in bringing children for treatment but also, I think, to a too great confidence in the efficacy of treatment by rest and to the inadequate carrying out of instructions given by medical men.

Anatomically the most important point in operating on such a case is the outline and limits of the synovial membrane. I have constructed Figs. 1 and 2 from examinations on the cadaver which show the following points: (1) that in extension the lateral reflection leaves uncovered the greater part of the lateral and posterior aspect of the femoral condyle both externally and internally; and (2) that on flexion these aspects are almost entirely covered.

In Case 10 I gained access to the focus from the outer posterior aspect; a two-inch incision was made parallel with, and in front of, the biceps tendon downwards as far as the lower extremity of the outer condylar ridge; inwards and downwards from this incision the surface of the bone was reached to the inner side of the outer head of the gastrocnemius. In a similar case I would in future make an incision through the skin over the outer side of the condyle and having exposed the capsule strip this and the synovial membrane forwards; I have found on the cadaver that by this means ready access may be obtained to the outer aspect of the condyle without penetrating the synovial membrane. Inasmuch as the tuberculous focus is more commonly situated in the neighbourhood of the inner condyle a route from the inner side will more often be called for. Mr. W. Watson Cheyne recommends a curved incision with its convexity upwards at the junction of the condyle with the shaft; this outlines a skin flap which is turned up and a vertical incision through the muscular fibres towards the back of the condyle exposes the capsule which is stripped downwards. I have found on the cadaver that simple vertical incision similar to that which I have described for the outer aspect of the joint gives quite satisfactory access to the postero-internal aspects of the condyle. After exposing the

bone the outer compact layer may be penetrated by a gouge or a spoon and the disease focus thoroughly scraped out. The cavity remaining should be treated with some satisfactory antiseptic, such as 1 in 500 biniodide of mercury

FIG. 1.

Line of reflexion of the synovial membrane in extension.

FIG. 2.

Line of reflexion of the synovial membrane in flexion.

in spirit; hæmorrhage may be checked by tight gauze packing for a few minutes and the wound may then be entirely closed without drainage.

I wish next to refer to the results of treatment in the ten cases in which the knee-joint was opened: first, as to the recovery from the disease and, secondly, as to the subsequent functional value of the limb. The results as to recovery are shown in Table II.

TABLE II.

No. of case.	Operation.	Interval since operation.	Ultimate result.	Remarks.
1	Erasion	2 years and 8 months.	Recovery.	—
2	,, (2)	2 ,, 3 ,,	,,	Pott's disease; recovery.
3	,, (2)	2 ,, 1 month.	,,	—
4	,,	2 ,, 1 ,,	,,	—
5	,, (2)	2 years.	Amputation.	—
6	,, (2)	1 year and 10 months.	Recovery.	—
7	,,	1 ,, 10 ,,	,,	—
8	Excision.	1 year.	,,	—
9	Erasion.	10 months.	,,	—
11	,,	10 ,,	,,	—

By recovery I mean present freedom from local disease. In three cases in which recovery ultimately ensued I had to perform erasion twice; in one case (No. 5) the joint went to the bad altogether owing to septic infection. The history of this case is as follows. The primary erasion was done on Feb. 14th, 1900, and the patient was discharged with the limb in plaster on March 9th, primary healing having taken place. Unfortunately, he was not brought again to the hospital until the following May 25th and when the plaster was removed the wound was found to have reopened and was obviously infected. In spite of a second erasion it was never afterwards clean and I performed amputation through the middle of the thigh on April 5th, 1902, with a satisfactory result as far as his general condition is concerned. With regard to the other cases freedom from disease has been verified by the tuberculin test in Cases 2, 4, and 11; and the others with one exception I have seen within the last few months and there are no signs of recurrence. The exception is Case 7, which remained under observation for seven months after operation, up to which time no return of the disease had taken place. All that I wish to remark about these results is that they show that erasion is a satisfactory operation as far as recovery from disease is concerned, even if it be found necessary to repeat it. Such repetition must be due to the overlooking of some of the disease at the first operation. It is hardly necessary to say that asepsis is all-important and that a knee-joint the subject of mixed infection is practically doomed.

The second aspect of the result is the after usefulness of the limb for purposes of locomotion. The present state of the limb in these cases is shown in Table III.:—

TABLE III.

No. of case.	Present state of the limb.	Remarks.
1	Ankylosis.	—
2	Fibrous ankylosis.	Flexion corrected.
3	Bony ankylosis.	No flexion.
4	Fibrous ankylosis.	Flexion corrected.
5	—	—
6	Fibrous ankylosis.	No flexion.
7	(?)	,,
8	Fibrous union.	,,
9	Fibrous ankylosis.	,,
11	,, ,,	Flexion corrected.

It is almost of the nature of a surgical axiom that what is to be aimed at after erasion or excision of the knee is firm ankylosis of the joint. With regard to excision this is not only undoubtedly always the desired end but also in most cases attained without difficulty. With regard to erasion the question is more complicated. In the first place, after this operation, and in spite of a long subsequent immobilisation of the limb, an ankylosis that will resist all tendencies to flexion is not easily obtained; in fact, unless the union is one of bone to bone it must always remain in doubt. With regard to the retention of mobility Mr. W. H. A. Jacobson says: "The frequency with which this has been obtained and its advantage have been in my opinion much exaggerated. I have no doubt whatever that a large number of published cases will show that where movement is sought for the risk is run of a certain degree of permanent flexion, of attacks of pain and swelling, and of the formation of troublesome sinuses. The argument against attempting to retain mobility in the joint is based therefore on two grounds: first, *the risk of permanent flexion* and, second, the *risk of recurrent disease*, and if these two risks can be avoided it may conceivably be justifiable to endeavour to obtain a functioning joint."

With regard to the question of flexion I may compare Cases 6 and 9 with Cases 2, 4, and 11. In the one group there was never from beginning to end any tendency to flexion; in the second flexion occurred and had to be corrected. In the first group I erased the joint by transection of the patella with reunion of the fragments; in the second I opened the joint by dividing the ligamentum patellæ. From this comparison and on general grounds I believe that flexion is always likely to occur when the integrity of the extensor is interfered with and can be largely discounted by leaving this intact. If the extensor is thrown out of action the muscular balance is disturbed and the hamstrings and the gastrocnemius are given unnatural advantage, the only resistance to flexion being the

insecure scar tissue uniting the severed portions of the patellar ligament. Transection of the patella avoids this provided firm bony union is obtained, and another method which also avoids it is Kocher's—i.e., incision of the capsule on each side of, and close to, the patella and division of the patellar attachments of the vasti. Transection of the patella affords ready access to all parts of the joint and is only open to the objection that it introduces the complication of a transverse fracture which, if bony union is not primarily obtained, damages the extensor to as great an extent as section of the ligament.

Kocher's method I have performed only on the cadaver. I have found it very difficult to obtain by it satisfactory access to the tibial surface and the posterior synovial recesses. I wish to direct attention to a method of exposing the joint which I think combines the advantages of giving free access to every part and of leaving the extensor entirely intact. A long median incision is made, commencing half an inch below the tubercle of the tibia and reaching upwards to about three inches above the upper border of the patella (Fig 3). This exposes the quadriceps expansion, the patella, and the ligamentum patellæ; the ligamentum patellæ is then split exactly in the middle line, the periosteum of the patella is incised in the same direction, and the extensor aponeurosis is incised to the full extent of the skin incision, the muscular fibres beneath it being separated with the handle of the scalpel. We then have a long incision commencing two inches above the patella which divides the quadriceps, the periosteum, and the ligament. The patella is then sawn through in the same direction and the joint is thus opened. The upper part of the incision is deepened with scissors so that the whole of the suprapatellar pouch is opened up and the quadriceps is split well above it. Perfect access to the upper limits of the synovial membrane is thus obtained.

FIG. 3.

Showing median incision.

When this upper part has been dealt with the lateral pouches are readily cleared, after which the joint must be flexed and at the same time each half of the bisected extensor, patella, and ligament, is retracted laterally until the halves of the patella lie outside the line of the femoral condyles (Figs. 4 and 5); the tibial surface and the posterior synovial reflexion are thus exhibited and dealt with as may be required. When all disease has been removed the joint is again extended and the halves of the patella fall naturally together and may be fixed with a single wire suture. Continuous sutures above and below the patella bring together the halves of the quadriceps and the ligament. I think that this procedure fulfils the requirements I have laid down—i.e., free access to the joint and preservation of the extensor.

By preserving this extensor opposition to the hamstrings and gastrocnemius I think that we can discount the first objection to an attempt to retain mobility—the tendency to permanent flexion. The second objection above noted was the risk of recurrent disease. Now it is, of course, necessary to keep the joint fixed after erasion as long as there is any doubt as to complete recovery from the disease. We are able to judge of this early and accurately by the use of the tuberculin test. I employed this test in Cases 2, 4, and 11 to determine the absence of disease before forcibly

FIG. 4.

Showing patella bisected.

straightening the joint; in each no reaction was obtained and I broke down the adhesions knowing that I was running no risk of setting up recurrence of the disease process. This test might also be used in cases where the retention of mobility was in question and by its use I think the danger of recurrent disease, the second objection, could also be discounted. I do not wish to go further than this in discussing the question of attempting to obtain a moveable joint after erasion and, to recapitulate what I have said, such attempts should be confined to cases where the extensor is intact and where the tuberculin test does not produce reaction and, in the third place, where the possibility of obtaining a useful joint has not been excluded by removal of the crucial ligaments and joint capsule. Supposing these structures have been severed and supposing for other reasons that the question of attempting to retain mobility is answered in the negative, how after erasion is firm union to be obtained? In a case in which at the operation it is clear that ankylosis is desirable the joint cartilages should be removed and exposed bone should be brought into apposition with exposed bone, a thin slice off each femoral condyle and the upper tibial surface insuring that this apposition is sufficient.

Lastly, a word as to indications for operative interference: 1. Cases of tuberculous foci in the neighbourhood of the

lower epiphysis of the femur should be operated on as soon as the diagnosis is established. 2. Cases of joint disease by extension from the femur should be operated upon as soon as possible if this extension is recent, and if not recent then when the disease does not definitely retrograde after about two months' fixation of the joint. 3. Cases of primary synovial disease should be operated on when after about

FIG. 5.

Showing the knee-joint flexed and the femoral condyles exposed.

three months of rest no distinct improvement has taken place.

Note.—Since writing this paper I have heard that the patient in Case 10 has had recurrence of the disease, but to what extent, and in what situation, I am unable to state.

Liverpool.

THE BORDERLANDS OF DIPHTHERIA AND SCARLET FEVER.

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As nosologists and as working physicians we find it convenient to aggregate certain associations of symptoms in sick people about certain terminological standards and we seek to erect those standards on bases as little fluent as the permanent mutability of natural phenomena will permit of our doing. There can, however, be no degree of finality in such a procedure and for so long as we continue to regard these measures as those engendered solely of temporary practical convenience there may be urged certain palliations for this artificial practice. The present moment, however, is one dedicated rather to the apotheosis of the systematist than to the philosophical contemplation of morbid phenomena, but in allying ourselves too eagerly with this deification of the utilitarian we run the risk of leaving out of sight the essential continuity of those states, health and disease, which exist not only for man and his fellow mammalia but for the whole of the biological kingdom. And this danger is no unreal one, for this thirst for diagnosis, for reference to categories, and for precision in the definition of the type leads to a disregard for the atypical (so-called), an impatience with the amphibological, and an overlooking of those forms of disease that do not conform to the standard pattern. The textbooks and treatises on which we were nurtured have done much to give rise to this artificial conception of the sufferings of sick beings and the objection that would instantly be raised to a plea for a broader conception of disease is that people wish to know the name of the illness from which they are suffering when they consult a physician. Surely, though, it is our duty to remain uninfluenced by such a consideration, for if patients expect to be docketed it must be we who have roused that expectation in their breasts. If our own conceptions of disease be faulty how can it be anticipated that theirs will be otherwise? *Quis custodiet ipsos custodes?* Whatever may be said in favour of a nomenclature which shall act as a *lingua franca* among medical men there remains the fact that disease will not allow itself to be confined within its limits; and that between our more prominent nosological groups will stretch *terrains* peopled by maladies of anomalous parentage, that speak in bastard *patois*, and that are untrammelled by the conventions of the systematists.

I can only hope to discuss here, and that very partially and imperfectly, some of those conditions that lie between those aggregations of morbid symptoms which we call for convenience' sake scarlet fever and diphtheria. These aggregations of symptoms have in themselves no intrinsic worth, but they act well as means about which may be grouped certain cases of sickness having certain symptoms in common with one another. Shading away from the cases that approximate more closely to those means are others that have less in common, and as the distance from one mean increases the approximation to the other becomes closer till midway a neutral zone, or no man's land, is reached, the cases in which are related by almost equally strong attachments to each of the original means. From each of the original groups, too, are cases gliding off in many directions, towards the rötheln-group, the measles-group, and what not. With these it is not proposed to deal; the only group that may be admitted is one which for contemplative purposes may be regarded as occupying an intermediate position between scarlet fever and diphtheria—namely, the tonsillitis-group.

It may be pertinent to inquire at the outset whether it be not possible to find yet another or other as yet unrecognised mean or means about which these borderland cases may be regarded as oscillating, whether in fact a new disease or diseases might not be hypothesised. Personally I do not think so, nor do I think it, from what I know, desirable. The means that we now recognise are in themselves sufficiently distinctive and between all such there must be amphiscian cases that throw their shadows now on this side, now on that. Such an attempt has recently been made with regard to certain cases that tend to tail off from the scarlet fever group and to have resemblance to the rötheln group, to which a provisional name, the fourth disease, has been attached. The wisdom of this course is extremely doubtful, for the cases described in support of this proposition seem to the minds of the more experienced pyretologists to bear too close an affinity to scarlet fever to warrant the postulation of a fresh centre about which their variations might be regarded as equilibrating. It would appear that the only justification for the creation of a new disease is the erection of a fresh and sufficiently distinctive criterion to which reference may be made in cases of doubt; when, in fact, a prominent symptom or combination of correlated symptoms is common in one series of cases and rare in other series. Criteria at the best are in themselves only to be regarded as more or less useful aids to the practice of the art of diagnosis and are no more imperturbable in their character than is any other factor. Criteria shift their ground as knowledge increases and become of second- or third-rate importance as further truths are brought forward; old criteria become positively baneful. One has only to notice the change that has taken place in the views held as to the relative diagnostic value of the morbid changes in the agminated glands of the intestine in typhoid fever to see this principle

illustrated. This criterion, valuable as it was for the last half of the nineteenth century, is now seen to be of less importance in judging of the nature of the disease than is the infection of the organism with Eberth's bacillus; whilst more recently even this bacillus itself is found to have congeners whose pathological relationships to the organism of man are yet undistinguished from that of Eberth's, and thus as a criterion of the significance of groups of clinical phenomena it has certainly ceased to be absolute. With Bretonneau the presence of false membrane on the fauces or upper air passages was a necessary antecedent to the postulation of the diagnosis diphtheria—a distinction long held—but Sanné in 1877 was already suspicious of the narrowness of this boundary and taught from his experience that there was a clinical entity that he called "diphthérie sans diphthérie." Klebs and Löffler by their bacillus set up a new standard of reference in this disease, a standard of great potential worth, which gave our views of diphtheria a catholicity that Bretonneau's forbade. No sooner, however, was a new tribunal erected than a mass of fresh difficulties were synchronously engendered and the path of the would-be dogmatic diagnostician is now at least as thorny as before. We now know that besides being present in the diphtheria throat the bacillus diphtheriæ may exist in an otherwise normal throat or in a throat which exhibits pathological changes quite unlike those of diphtheria, or even in a throat which is obviously the concomitant of a condition that is not diphtheria—scarlet fever, for example. These facts but exemplify in the domain of medicine the same principle that obtains in all departments of knowledge; absolute truth is an ideal, a metaphysical abstraction; finality is unattainable. It behoves one none the less to search for the greatest possible certainty, but this is unattainable by employing the methods of Procrustes, tempting as those methods are.

If we recognise that there are not, and cannot be, hard-and-fast lines in the biological sciences, that the types from which we learn are idealistic means, and that an organic continuity exists between all phenomena, we may find the illustration of this principle in the morbid states of the human body with very little application, and the purlieus of diphtheria, scarlet fever, and tonsillitis (using that word in its broadest significance) afford many interesting and instructive examples of departures from the type so various as to lead by an almost sensible mergence into one another.

If diphtheria be regarded for argumental purposes as at one end of a scale and scarlet fever at the other, and we confine our attention to the gradations between, we shall need to enumerate briefly those characters by which we are accustomed to differentiate the one disease condition from the other. Briefly, then, diphtheria is disease of a mucous membrane, generally of the throat and upper respiratory passages, proximately allied in its etiology with the pathogenic manifestations of the Klebs-Löffler bacillus, characterised by the formation of an exudation on the affected surface generally continuous in extent, inaugurated and accompanied by mild febrile phenomena, of short course, followed by great depression of the vital powers, followed also by a train of symptoms due to the absorption of certain toxic products of the metabolic activity of the Klebs-Löffler bacillus and to the degenerations of various tissue cells induced by those products, the more common of which are myocardial, central and peripheral nervous, gastric, renal, and hæmic degenerations.

Scarlet fever, on the other hand, is a disease in which, after preliminary invasion of the throat and upper respiratory passages by a certain putative coccal bacterium, certain inflammatory changes are caused in those tissues of which the most common is the formation of an exudation on the tonsils and fauces; by the passage of this coccus or its products into the circulation a dermatitis is induced, this dermatitis beginning in the upper parts of the body and proceeding to the lower and being generally punctiform in appearance and erythematous in nature; the disease onset is ushered in, and accompanied by, well-marked febrile symptoms; whilst, later, infection of many organs by pyogenic bacteria occurs, this being especially the case with the ear, the joints, the submaxillary lymphatic glands, and the kidney, in any of which organs marked inflammatory changes may ensue; the disease is followed, as a result of the early dermatitis, by the shedding of the cuticle, most characteristically of the palms and soles, and is not infrequently complicated by the supervention of rheumatism.

One is accustomed to speak, too, very freely of tonsillitis as though that were a specific entity in itself, and acute throat affections which present anomalous concatenations of symptoms that do not tally satisfactorily with the book features of any of the classical diseases are apt to be brushed contemptuously aside with the label "tonsillitis" affixed as a final designation. Yet what varieties of throat infections there are and what various organisms associated with them. Diphtheria itself is only a specific tonsillitis and there are myriads of other organisms that may affect pathologically the tonsil and throat tissues. The recognition of the relationship that exists between many of these organisms and the various pathological phenomena that present themselves to us in inflammatory faucial conditions has as yet made little progress; some, such as the pneumococcus, seem to have a fairly definite etiolegical relationship with certain clinical conditions, but in cultures from the ordinary case of "tonsillitis" we find cocci of many shapes, sizes, and forms, principally staphylococci and streptococci, with a smaller proportion of other micro-organisms such as sarcinæ and yeasts. It is impossible at present to assign a definite value to the presence of each or any one of these bacteria. The word "tonsillitis," then, as ordinarily used here must be taken as signifying an inflammatory condition of the faucial tissues with a discrete follicular exudation on the tonsils that yields on culture a growth of coccal bacteria indistinguishable morphologically from the pyogenic cocci, this condition being accompanied, *bien entendu*, by fever and its co-existing and consecutive disturbances.

These definitions must be regarded as not more than broad working bases upon which the subsequent framework may be erected and from what has been said already it is obvious that they are no more than tentative half-truths, used, as shillings are used, as current tokens the intrinsic worth of which is far less than their face value. They must constitute, however, our verbal currency for present purposes.

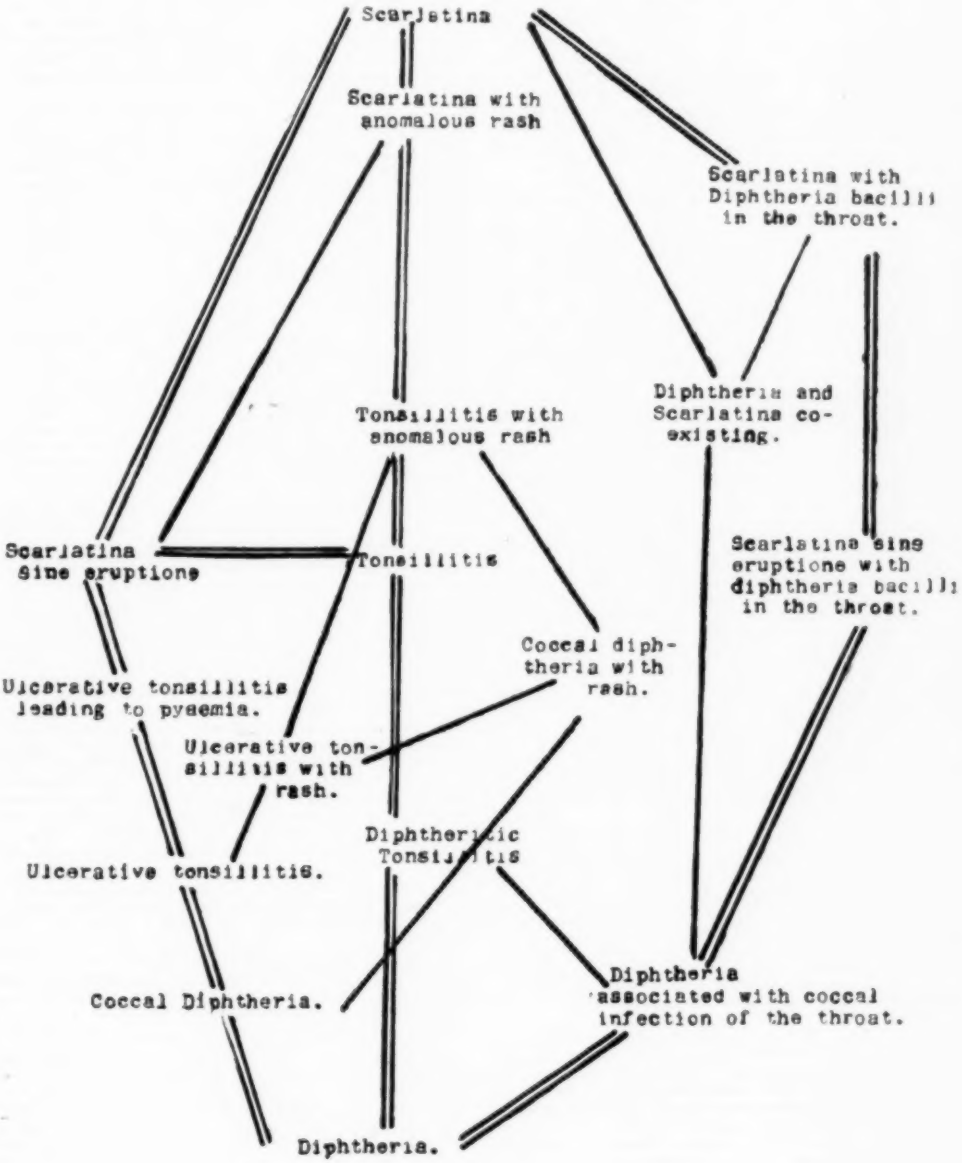
Now as it is necessary to start with some fixed points I have chosen the disease means that are conventionally known as scarlet fever and diphtheria and propose to take a line through another arbitrary mean—tonsillitis, distributing around and between these groups those cases that do not bear the absolute features of any of these and yet have relation, firstly, to each other; secondly, to some other group or groups; and thirdly, to the chief groups. In order to supply the mind with a graphic conception of these various groups, their coördination and inter-relationships, I have drawn up the accompanying simple diagram.

It must not, however, be assumed that any of the groups set forth in this diagram is a whit less arbitrary than any of the original or main groups; it is submitted that the exact opposite is the case; the aim is to illustrate the fact that between the more clearly defined means lie many less clearly defined means about which the less commonly occurring cases may be aggregated, and that each of these aggregations has relationships with one or more of the neighbouring aggregations. No single case of sickness is an exact replica of any other case of sickness any more than any particular man's face is an exact replica of any other's, and the best classification of disease (or physiognomy) will always be the most supple and comprehensive one. In the subject under notice it is only sought to point out how very imperfect and ill adapted to its function the most elastic of classifications must of necessity be, for it cannot be contended that the groups indicated in the diagram are by any means all that might be formed.

In order to demonstrate the actuality of the signified groups I propose to exemplify each, whenever it may be necessary to do so, by reference to specific cases that have been under my observation, but it must be remembered that the instances given are only selected examples out of a wealth of material. In a turnover of a large number of cases of infectious diseases instances of these variations are always present and form a by no means inconsiderable proportion of the total bulk, and though it is necessary here to restrict oneself to one or two examples of each kind it would be easy to multiply these twenty-fold in most instances. For present purposes, too, it will be necessary to state the points of each case very baldly, giving only the briefest possible summary, though detailed clinical accounts would demonstrate the points urged far more luminously.

Scarlet fever itself has already been defined and its main features are so widely observed and so generally recognised as to call for no further description or exemplification. Not quite so well accepted are those cases which with some of

PLAN OF RELATIONS OF SCARLET FEVER WITH OTHER INFECTIONS.



the traits of scarlet fever combine other characters not usually associated with scarlet fever, especially those in which the rash is ill-marked, fleeting, anomalous in appearance, or of unusual distribution, perhaps even combining one or more of these attributes. Often so little like scarlet fever are these cases that their relationship to that disease may be either overlooked by the most experienced or may be absolutely indeterminable. Nor will time always solve the question. If profuse general desquamation ensue in due course, especially if the palms and soles exfoliate their coating of epithelium in bulk, the diagnosis is practically certain, but from the nature of the original dermatitis it is improbable that this will occur and a little ill-defined peeling—or even none at all—may leave one in as much doubt at the end of the case as one was at the beginning. A legion of examples illustrating every phase of these conditions might be adduced, but one must suffice. It is chosen for the reason that it was so anomalous as actually to deceive and yet demonstrated its real character by its subsequent course.

CASE 1.—The patient, an assistant nurse, aged 22 years, had never had scarlet fever. 14 days after arriving at the Grove Hospital, during which time she was employed in a scarlet fever ward, she was taken ill with sore-throat, malaise, and fever. The tonsils and soft palate were swollen and injected and there was some speckly exudation on the tonsils. The tongue was moist and thinly furred. The submaxillary lymph glands were natural. The pulse was 84. On the evening of the third day some blotchy indefinite erythema, principally visible on the limbs, was observed. By the fifth day this had disappeared, never having presented any other characters than those mentioned. The soft palate was still a little injected and the fungiform papillæ were rather prominent. No organisms beyond the ordinary cocci were found in her throat on culture. By the eighth day the throat tissues were pale and free from exudation. Although in this case scarlet fever was strongly suspected at the onset, the subsequent course appeared to justify her discharge on the eleventh day with the diagnosis of tonsillitis. On the twenty-third day, however, she had pin hole desquamation of the palms of the hands; on the twenty-fifth this desquamation was well marked and the fingers were peeling; on the twenty-ninth there were feathery desquamation of the toes and pin-hole desquamation of the soles of the feet, whilst the hands were peeling freely. During the whole of her illness she was under close medical observation.

It may appear that this case should have been regarded throughout with more suspicion than was actually entertained, but a somewhat extensive experience of sore throats among members of the staff of a fever hospital has taught one how extremely frequent these anomalous rashes are with every form of tonsillitis. The routine procedure that I adopt after examining a sore-throat is to inspect carefully the skin for any lesion that may be present, and I have been vividly impressed with the frequency with which erythemata of all kinds, shapes, and distributions occur in these circumstances. From a little mottling of the chest to the most intense general blush such rashes vary, and over and over again scarlet fever has been suspected where it did not exist. On the other hand, it is quite possible that many of these cases have been mild cases of scarlet fever in which the diagnosis has never been cleared up. The distinction is not possible with our present equipment—witness, for example, this case.

CASE 2.—The patient, a male, aged three years, was taken ill with sore-throat and swelling of the glands of the neck and was sent to hospital certified to have diphtheria. The throat was injected and swollen and there were slimy secretion and exudation about the tonsils and fauces. The submaxillary lymph glands were a little enlarged and the tongue was coated with moist fur. The temperature was 98·8° F. On the trunk and limbs irregular, blotchy erythema was spread, showing some punctiform arrangement in patches. No diphtheria bacilli were found in two cultures of the throat, only the ordinary coccal organisms. By the fifth day the throat was clean but the rash persisted till the sixth and was followed by no desquamation except a little shagginess of the skin of the outsides of the legs on the thirteenth day. Altogether he was in hospital for 11 weeks, the latter part of the time because he had contracted measles.

Here, again, a large number of instances in point could be brought forward if space permitted, all cases of acute throat infections accompanied by erythematous rashes, none followed by peeling. The differentiation of such cases from the milder and less characteristic forms of scarlet fever is in our present state of knowledge impossible.

The ordinary throat infections, or instances of tonsillitis, have to be considered, too, in relation to a specific throat infection which is likewise unaccompanied by rash—I mean that form of scarlet fever that is known as "scarlatina sine eruptione." I long had grave doubts as to the existence of this condition as a distinct entity but I have seen it too often now to be able to doubt its actuality. The specificity of the condition can only be established by its occurrence in connexion with cases of undoubted scarlet fever with rash, and not only is this seen but cases are found precisely similar arising sporadically. Scarlatina sine eruptione usually comes to hospital with a certificate of diphtheria and if admitted to a diphtheria ward is very apt to inaugurate an outbreak of scarlet fever among the diphtheria patients; its recognition is, therefore, a matter of some little moment. On the whole it seems to affect the very young and the adult more than those inhabiting the age periods on which the scarlatinal incidence more commonly falls. Thus it happens that in an outbreak of scarlet fever in a family, whilst the children from, say, three to 12 years of age suffer from well-marked scarlet fever, the father or mother (who may have had scarlet fever when young) escape with tonsillitis (scarlatina sine eruptione) and the baby has a similar but more severe throat infection which is really scarlatinal also. As instances of scarlatina sine eruptione may be cited the following cases.

CASE 3.—The patient, a female, aged three years, was taken ill with vomiting, sore throat, and rhinorrhœa, and was sent to hospital as suffering from diphtheria. On admission the skin was pale. No rash had ever been seen by the mother or by the medical attendant. The throat was much swollen and injected and both tonsils were capped by patches of continuous white exudation. The mouth and the throat were filled with stringy muco-purulent secretion. The submaxillary lymph glands were much swollen and the tongue was thickly coated. Three cultures from the throat and the nose showed an abundant growth of coccal forms but no diphtheria bacilli. The temperature remained raised till the eleventh day; there were much delirium and restlessness and the tongue became ulcerated. Throughout the illness there was no desquamation. On the ninth day of the illness the patient's sister, aged 11 years, was admitted with well-marked scarlet fever with rash which was followed by desquamation in due course.

CASE 4.—The patient, a male, aged two and a half years, was taken ill with sore-throat, headache, shivering, rhinitis, and submaxillary lymphadenitis but no rash. He was brought to the hospital certified as having diphtheria, whilst his sister, who was taken ill at the same time, was sent in with ordinary scarlet fever. The boy had no diphtheria bacilli in his throat as evidenced by two successive cultures, in which, however, there were abundant growths of cocci. His throat was reddened and œdematous; a few specks of exudation were visible in the tonsillar crypts; there were much slimy secretion about the throat and abundant rhinorrhœa. The tongue was furred, there was no rash, and there was marked submaxillary lymphadenitis. It was not till the twelfth day of the illness that the fever subsided, when the throat became clean and the adenitis ceased. There was never any desquamation.

Two very similar cases were under treatment about the same time—a father, aged 41 years, and a son, aged 12 years, who in addition to these symptoms both showed the strawberry tongue.

These and such-like cases shade gradually into another condition that is very little dealt with in the systematic text-books and very little recognised generally but which is an almost daily experience in a fever hospital. I know of no heading in the official nomenclature to which they may be assigned and am forced to content myself with the inept designation "ulcerative tonsillitis." Not arising in association with any similar affection as a rule, these cases may or may not be infectious, but they are usually marked examples of throat infections and often run a severe, occasionally a fatal, course. Their chief character is the exhibition of a large ulcer or ulcers on the tonsils and surrounding tissues, some of considerable extent and depth; the adjacent lymph glands are inflamed and there are fever and general constitutional disturbance. The local process sometimes leads to considerable destruction of the throat tissues and the system may become infected by the pyogenic cocci. The great difficulty at first is the distinction of these cases clinically from diphtheria which they resemble strongly in the throat appearances; when this difficulty is disposed of by the progress of the case the suspicion of scarlet fever begins and is often, indeed, present to the end, so similar are the later lesions of the fauces and palate. The general symptoms, too, are of the sthenic type—delirium, restlessness, and considerable pyrexia—which suggest a much closer relationship to the latter disease than to the adynamic, algid diphtheria. The following cases are excellent instances.

CASE 5.—The patient, a female, aged two years, was taken ill with sore-throat, swelling of the glands of the neck, and constitutional disturbance and was sent into the hospital certified to have diphtheria. On admission she was found to have a temperature of 102·8° F.; there was no rash, the tongue was dry and furred, the throat was injected and a little swollen, whilst on both tonsils were masses of membrane-like exudation which on the left side overlapped the anterior pillar of the fauces and ran along the edge of the soft palate. The submaxillary lymph glands were a little enlarged and there was a little bronchitis. Two successive cultures of the throat showed various growths of cocci but no diphtheria bacilli. Before these had been made, however, she was given 12,000 units of antitoxic serum. On the sixth day of illness the exudation began to separate and it was now seen to be composed of necrotic tissue covering ulcers in the subjacent parts. On the seventh day the slough re-formed but separated on the ninth day, leaving excavated, ragged ulcers of the tonsils and of the pillars of the fauces and soft palate. The temperature reached the normal line that night. The granulation of these ulcers occupied three weeks, the throat not presenting its natural appearance till the thirtieth day. General constitutional progress continued *pari passu* with the repair of the local damage. There was never any desquamation.

CASE 6.—The patient was a male, aged five years, who was taken ill with malaise, sore-throat, and swelling of the glands of the neck, and was admitted to hospital on the next day certified to have diphtheria. When seen the throat was swollen and on the upper surface of the right tonsil and the adjacent edge of the soft palate, extending on to the uvula, was a slab of greyish-white membrane-like exudation. The right submaxillary lymph glands were enlarged and tender and the tongue was clean and moist; no rash was present. He was given an injection of 9000 units of antitoxic serum. Three cultures of the throat, taken on successive days, showed growths of streptococci only. As the exudation on the right tonsil and palate disintegrated it was found to cover a raw, excavated surface, though before this had occurred two superficial ulcers had formed on the left tonsil, a deep one on the left edge of the soft palate, and another on the posterior pharyngeal wall. These gradually cleaned and cicatrised and by the twelfth day all the ulcers were healing, though the left edge of the soft palate was completely destroyed and was eventually represented merely by a band of cicatricial tissue. On the eighteenth day the throat was practically natural in appearance but for the condition of the soft palate. There was no evidence of syphilis in this case and no further treatment than simple lavage with chlorine water was adopted. There was never any desquamation.

Closely as these cases resemble scarlet fever in their subsequent stages it occasionally happens that the parallelism is still further marked by the supervention of pyæmic phenomena, as took place in the following case.

CASE 7.—The patient was a female child, aged one and a half years. This case may cause some dissension from the fact that some diphtheria bacilli were found in the throat but the case was far removed from type-diphtheria and this seems to be the most appropriate place in which to introduce it. The patient was taken ill with vomiting, swelling of the glands of the neck, rhinitis, and cough, and was sent into the hospital as having diphtheria on the next day. On admission the fauces and tonsils were œdematous and were covered with shreds of exudative material and they bled easily. There were much slimy mucus in the mouth and the throat and profuse rhinorrhœa and the submaxillary lymphatic glands were enlarged on both sides. There was never any rash or desquamation. The child was very ill and the temperature ranged from 103° F. in the evening to 100° in the morning. 12,000 units of antitoxic serum were given on the second and again on the third day of illness. As the throat became cleaner the tonsils were seen to be ulcerated and this ulceration spread, the slough re-forming from time to time, on to the anterior pillars of the fauces. The ulcers did not heal till the thirtieth day. The temperature was continuous between 103° and 102° till the twenty-fourth day, and remittent till the forty-second, when it finally reached the normal. In the meantime various abscesses formed in different parts and were opened. For the sake of brevity I will merely enumerate them; twenty-sixth day, on the left middle ear; twenty-ninth, at the root of the left middle finger-nail and two on the scalp; thirty-first, in the right temporo-mandibular joint and on the palm of the left hand; thirty-third, on the right fore-finger and on the scalp; thirty-fifth, in the tendon sheath of the left middle finger; thirty-sixth, on the gum; and forty-second, in the right shoulder-joint. She had a long lingering illness, many subsequent operations being performed for various sequelæ, such as necrosis of the left parietal bone and the right temporal bone, and amputation of the left middle finger for destruction of the tendon and ankylosis of the interphalangeal joints. Finally, the patient left the hospital after six months' treatment with a little still unhealed sinus behind the right ear.

The resemblance of this case in which no rash was present to the severe form of scarlet fever in which there are combined local destruction of the throat tissues and septic infection of distant structures is well worthy of notice. Even without proceeding to the length of a general infection of such severity an ulcerative tonsillitis may be accompanied by an eruption of the skin which bears no distinctive character and is quite unlike the general eruption of scarlet fever. These rashes vary widely. The following case may be taken as showing what may occur.

CASE 8.—The patient, a female, aged 21 years, was taken ill with sore-throat, swelling of the glands of the neck, and rash, and was brought to hospital under a certificate of diphtheria. On admission the arms were covered with a coarse, sparsely scattered, macular rash, whilst the lower limbs presented a similar rash but composed of smaller and more closely aggregated lesions. The throat was reddened and œdematous and showed a film of slough on the right tonsil. The tongue was coated with thick fur. On the next day the rash had spread in extent; it had coalesced in places on the arms, was still discrete on the thighs, but was continuous on the legs. On the sixth day the rash was fading and the slough on the tonsil had separated, leaving an exposed ulcer. No diphtheria bacilli were found in three successive cultures and there was no desquamation.

The features of this group of cases that I wish to emphasise are that whereas the throat appearances are most puzzlingly akin to those of diphtheria the course followed by the throat lesion is very different, for rarely indeed do we find any ulceration, except the most superficial and transitory, in straightforward, frank diphtheria. This local necrosis of tissue divides this group of cases from the next which I have called, for the sake of convenience, "coccal diphtheria" (the *diphtérie à streptocoques* of Variot). I do not mean to imply more by this term than that a disease indistinguishable from diphtheria is not uncommon in which repeated cultivations of the throat fail to bring to light the Klebs-Löffler bacillus. The following case, *inter alia*, is in point.

CASE 9.—A female, aged 20 years, was taken ill with vomiting and sore-throat and was admitted to hospital on the next day certified to have diphtheria. The throat was reddened and œdematous; on both tonsils were continuous slabs of membranous exudation and the uvula was clothed by a sheet of similar material. The submaxillary lymphatic glands were somewhat enlarged and the tongue was thickly furred. There was no rash and the temperature was never higher than 101° F. 12,000 units of antitoxic serum were injected. Four successive cultures were made from the throat without diphtheria bacilli being discovered. The temperature became normal on the fourth day but the throat cleaned very gradually, was not free from membrane till the twelfth day, and never showed any ulceration. The subsequent course of the illness was uneventful. There was never any desquamation.

This form of illness may also be attended with eruption on the skin and also with laryngeal infection. The appended case exhibited both of these features.

CASE 10.—The patient, a male, aged two years, was taken ill with sore-throat, swelling of the neck, and croup, and was sent to hospital as a case of diphtheria. On admission he was found to have a husky voice, a hoarse, croupy cough, and a macular, mottled rash spread over the trunk and the limbs. The throat, swollen and injected, showed a cap of membranous exudation on each tonsil; the submaxillary lymph glands were a little enlarged and the tongue was thinly furred. 12,000 units of antitoxic serum were given. Three successive cultures showed growths of cocci but no diphtheria bacilli. The rash gradually faded and the throat cleaned. The laryngeal affection never became so severe as to call for operative interference.

Having passed in review these several gradation forms from the standpoint of scarlet fever, it may be profitable to recommence at the bottom of the scale in the diagram, taking diphtheria as the fixed point and moving gradually in the direction of scarlet fever to reach the point where the two blend in the individual patient—that is to say, till those two arbitrary means are so commingled in the same subject that a fresh mean is established equidistant from each.

Of diphtheria *proprement dit* it would be supererogatory to speak; a definition has been hazarded; the condition is a well-known one and forms an admirable *point d'appui* for the argument under consideration. The only minor variety of diphtheria of which preliminary mention is necessary is one, too, that is so widely recognised that the production of individual instances would be tedious. I refer to the state clinically indistinguishable from tonsillitis, in which culture of the tonsillar exudation shows diphtheria bacilli to be present in such large numbers as to make it reasonable to believe that this organism has causative alliance with the malady. The activity of this factor and the relationships of these sore-throats are among the many valuable results of the discovery of the bacillus diphtheriæ, though their nature was shrewdly suspected at least 25 years ago by Sanné, as has already been remarked. Having, however, referred to its occurrence, we may pass on to consider the association of the diphtheria bacillus with other organisms, especially the pyogenic cocci, in the production of illness.

It is matter for surprise that the part played by these bacteria—albeit subordinate to that of the protagonist, the Klebs-Löffler bacillus—attracts so little attention, for the modification in type-diphtheria which they introduce when taking an active share in the illness is a by no means negligible one. As has been previously remarked, diphtheria is a depressant, asthenic malady. When suffering from it the patient is quiet, languid, and *triste*; its course lasts but a few days, the temperature is but little raised, and the ancillary features of pyrexial disturbance are feebly marked. Quite otherwise is it with those illnesses in which the pyogenic cocci are much concerned. In them fever, restlessness, and delirium are present: the patient is active and struggling and the course is of uncertain duration. Regarded from another point of view diphtheria is, in the main, a toxæmia and even if the specific bacilli are scattered by the blood stream no fresh lesion is produced by the metastasis. The pyogenic cocci, on the other hand, tend to reproduce their lesions in different parts of the body and suppurations of various tissues, adjacent or remote, are common sequelæ of a septic infection. Now, although an attack of diphtheria in which a pure culture of the Klebs-Löffler bacillus is obtained is comparatively uncommon, the prevalence of that factor in the diseased condition can usually be gauged to a certain extent, even though other organisms be present. In a good many instances, however, diphtheria bacilli are present in comparatively small numbers, and though their functional activity may be undoubted from various signs and symptoms there is a deviation from type-diphtheria towards the condition naturally associated with septic infection. In such instances, whilst the throat appearances are akin to those of diphtheria, and diphtheria bacilli are present in the throat, there will be superadded various local and general effects which may be reasonably referred to the presence of the luxuriant growths of the pyogenic cocci that accompany and vastly outnumber these bacilli themselves. On such occasions

will be looked for a marked rise of temperature, a longer and more irregular course, feverishness and delirium, persistent submaxillary lymphadenitis ending perhaps in suppuration, otitis media, and other septic lesions. Locally are seen without surprise a more marked inflammatory reaction in the throat tissues and perhaps some ulceration of those tissues when the membrane has separated. The proportionate part taken by the two factors varies greatly, of course, sometimes one element prevails much, sometimes the other; in some instances a fairly even balance is struck between the two. The following case illustrates some of these facts.

CASE 11.—The patient, a boy, aged three years, was taken ill with sore-throat, vomiting, and eruption on the skin, and was brought to hospital, under a certificate of diphtheria, on the fourth day of illness. Impetiginous sores were scattered about the face; there were several pustules on the neck and the left ankle and a whitlow of the left thumb was present. The throat contained much slimy mucus but when this was removed it was seen to be markedly swollen whilst membrane covered both the tonsils and the uvula. The left submaxillary lymph glands were considerably swollen and hardened, the tongue was thickly coated, and there was profuse rhinorrhœa. The child was delirious and restless; the temperature ran a continuous course between 103° and 102° F. till the fifteenth day and there were present during this time the usual febrile symptoms. Diphtheria bacilli were found in certain numbers in the nose and throat but there was an enormous number of cocci associated with them. By the tenth day the local symptoms had abated, the rhinorrhœa was less, the throat was less swollen, the membrane had separated, and some superficial ulceration of the tonsils was seen. The right tonsil healed readily, but an excavated ulcer of the left tonsil formed and the left-sided lymph glands became harder and more painful and remained so for a long time. On the sixteenth day right otitis media ensued and this was followed by right otorrhœa.

Cases such as this are by no means infrequent and they illustrate very clearly the two disease elements at work, the diphtheria element and the septic element (if I may call it so). Every *nuance* in the association of these elements may be observed in the study of diphtheria patients and the relative importance of the two, both for purposes of diagnosis and of assessing their infectivity to others, is a matter that cannot be too carefully dealt with. Space will not permit the pursuit of these fascinating themes and we pass from it insensibly to the association of the diphtheria bacillus with another septic throat infection, in this case a specific infection—namely, scarlet fever. The nexus passes most naturally through those scarlatinal throat infections which have been spoken of above under the title of "scarlatina sine eruptione." When this variation from type-scarlet fever is associated with the presence of a certain number of Klebs-Löffler bacilli in the inflamed throat, especially when it arises sporadically, its distinction from diphtheria with prominent septic element and subordinated diphtheritic element may indeed baffle the most astute. The separation of such a case from one of ulcerative tonsillitis in which diphtheria bacilli are casually (as opposed to causally) present is, I think, impossible apart from collateral circumstances. Some of the difficulties that such cases of scarlatina sine eruptione with diphtheria bacilli in the throat may present are shown in the following case.

CASE 12.—A male, aged 13½ years, was taken ill with vomiting, sore-throat, headache, and shivering and was admitted to hospital on the next day certified to have diphtheria. On admission no rash was seen nor did any appear throughout the illness except as detailed below. The throat was œdematous and on each tonsil patches of membranous exudate were present. The submaxillary lymphatic glands were somewhat enlarged and the tongue was covered with dry, caked fur. The temperature was 104·2° F. A few diphtheria bacilli were found on culture from the throat, together with many cocci of various forms. The patient was given 12,000 units of antitoxic serum. On the following day the throat exudation had become continuous in extent, there was profuse rhinorrhœa, much stringy mucus blocked the mouth, and the submaxillary lymphatic glands, especially on the right side, were larger and more tender. There were much restlessness and delirium and the evening temperature was 105°. He was then given 18,000 units of antitoxic serum. On the fifth day of illness the tongue was clean, dry, glazed, and showed marked prominence of the fungiform papillæ, and there was an eruption of small discrete papules over the knees, the elbows, and the sides of the trunk. Delirium was very violent. The temperature was 103·5°. After this gradual improvement took place, the temperature reaching the normal on the eighth day, when also left otitis media, followed later by otorrhœa, occurred. The exudation cleared from the throat without leaving any but superficial ulceration. There was never any desquamation.

The true nature of this case might not have been revealed had it not been that the patient gave rise to a little epidemic in the diphtheria ward to which he was sent, in the course of which no less than ten patients developed scarlet fever, an occurrence which demonstrated pretty clearly that he had been suffering from scarlatina sine eruptione, complicated by the presence of diphtheria bacilli in the throat.

From such cases as these the transition is easily made to the group of cases in which well-marked scarlet fever, with its characteristic phenomena, occurs in association with the Klebs-Löffler bacillus. It is a great pity to lump these cases with others and to label them scarlet fever and diphtheria; such action implies that they are cases of diphtheria as much as of scarlet fever, whereas diphtheria itself is a disease of which the possession of Klebs-Löffler bacilli in the throat is only one feature and if any, or some, of these cases present no other feature of diphtheria than the possession of Klebs-Löffler bacilli in the throat the connotation becomes so narrow that the denotation (diphtheria) is worthless. If a routine practice be established of making cultures from the throats of all patients suffering from scarlet fever seen in succession it will be found that a large number have diphtheria bacilli along with other bacteria in the throat; the actual percentage varies with many circumstances—age, class of society, time of year, and so on—so that an actual figure, being so inconstant, is not of much account. A large enough number of cases will always furnish plenty of particular instances. This is a matter of such common experience as not to need exemplification. It leads, nevertheless, by insensible gradation to the consideration of the question whether scarlet fever and diphtheria can co-exist in a patient—both these conditions, that is to say, reaching their maximum at or about the same time. For scarlet fever to attack an individual recovering from diphtheria or diphtheria one recovering from scarlet fever is not only not surprising but is even a common event, especially in fever hospitals. There is no co-existence, properly so-called, about such events, for they succeed each other. For the synchronous occurrence of these diseases to be asserted in any instance there must be predicated for diphtheria some other attribute than the mere possession of Klebs-Löffler bacilli in the throat of a sufferer from scarlet fever; indeed, the finding of these bacteria even in an inflamed scarlatinal throat covered with continuous exudation in no way justifies an absolute assertion, as such a throat condition is quite consistent with the diagnosis of scarlet fever. Although some of these cases, doubtless, are instances of the synchronous occurrence of the two diseases, in order to assert the fact with any degree of assurance it is necessary to show that each element plays some part in the succeeding phenomena and it is very seldom that this can be satisfactorily accomplished. Here again, as in the argument of mixed infection by diphtheria bacilli and pyogenic cocci, we find much difficulty in apportioning its due share and influence to each of the elements involved, sometimes one being the leading feature, at other times the other. An equipoised coincident attack of diphtheria and scarlet fever I believe to be very rare—as rare, probably, as the contemporaneous efflorescence of two acute specific fever eruptions. Still, in watching many hundreds of cases of each disease instances are occasionally observed in which this occurs. Apart, however, from these, it is a matter of the greatest difficulty to assess the share that diphtheria bacilli take in the pathogeny of a condition in which symptoms of scarlet fever are pre-eminent and in many cases they probably exercise no traceable influence at all in the acute stage. Patients suffering thus may, however, infect with diphtheria bacilli fellow patients suffering from scarlet fever, which may result in their being attacked in their turn by diphtheria, and not improbably such patients may themselves suffer from diphtheria in convalescence from a rousing of the diphtheria bacilli in their own throats into activity by those extraneous influences which have this effect.

I have chosen the subjoined case, though owing to its late arrival in hospital the fact of the original scarlatinal rash is not well established, for illustration of the concurrent course of scarlet fever and diphtheria, for not only was the desquamation undoubtedly such as occurs after scarlet fever but the paralyses that ensued were of a character to warrant the assumption that the diphtheria bacilli found in the throat were of active pathogenicity.

CASE 13.—A male, aged 13 years, was taken ill with headache, sore-throat, swelling of the glands of the neck, rhinitis, and shivering and was brought to hospital certified to have diphtheria on the sixth day of disease. On admission there was well marked coarse punctation of the outer sides of the arms and the same condition, but not quite so prominent, was present on the outer sides of the legs. There was also some erythema over the front of the neck due to poultices that had been applied. The throat tissues were much injected and very œdematous and continuous grey exudation covered both tonsils and pillars of the fauces, while similar but thinner exudation extended over the soft palate. The submaxillary lymphatic glands and the surrounding tissues were swollen, hardened, and tender, and thin watery fluid ran from the nose. The temperature was 100·2° F. and the patient was delirious and restless. 18,000 units of antitoxic serum were injected. The first culture did not reveal any diphtheria bacilli but one made on

the following day yielded abundant growths of long diphtheria bacilli. The general and local conditions were more unfavourable on the next day and a further dose of 18,000 units was given. On the eighth day the throat showed less exudation and where exudation had been some superficial ulceration was observed. A macular rash appeared on the hands and feet—probably an early serum manifestation. After this the patient became gradually better; the temperature, which had been remittent and never rose over 100·6°, finally reached the normal, the throat resumed its natural appearance, and desquamation of the face and neck was noted on the tenth day. On the seventeenth day desquamation was more general and was beginning on the palms of the hands. On the twenty-fifth day the palms of the hands and the soles of the feet were peeling profusely, as were also the trunk and limbs. On the thirty-third day there was paresis of the ciliary muscles. On the forty-first day paresis of the palate was noticed, accompanied by nasal intonation of the voice and regurgitation of fluids through the nose during the act of deglutition. This case surely establishes the fact that diphtheria and scarlet fever can both produce their effects in the same patient at the same moment.

I have now shown, or endeavoured to show, that the principle of relativity obtains in a very striking degree in the knowledge possessed with regard to scarlet fever, diphtheria, and tonsillitis, and that it is a fatal error to suppose that anything approaching absolutism can ever prevail from the inherent nature and interdependence of these morbid states. The cleavages which time and circumstances have introduced into the series of beings of which biology treats have, to a certain extent, eased the labours of the systematist by fixing certain characters, with correlative sub-characters, and these are available for purposes of classification. Their kingdoms, phyla, genera, species, and what not have value in virtue of the distinctiveness of these factors. In medicine this is less so and in the subject of which we are speaking the interlacings, overlappings, and interfusions are such that no schema can be satisfactory, consistent, or final. It is impossible to find the *fundamentum divisionis* for each group, in the absence of which the *differentiæ* of the species are only remarkable and not distinctive. The inference to be drawn then from what has been set forth is that no different characters of these morbid conditions, scarlet fever, diphtheria, and tonsillitis, are mutually exclusive, and that though these nosological terms may be employed for the sake of convenience and for the interchange of ideas they must not be deified into absolute entities. Such considerations as these have very practical bearings—bearings which bring us to no less a conclusion than that the diagnosis of these several conditions is an art with very severe limitations and it is wise, if humiliating, to recognise this fact. If the diagnostician have the broadest experience and the sharpest acumen he cannot assign a sickness to a group when no group exists for it, and if he grasp at once the nature of some of these cases he cannot place his particular case in a pigeon-hole when no pigeon-hole exists for its reception.

Much has been said of late, said glibly enough too, about errors in diagnosis in the infectious diseases. One wonders if it is realised by those who speak thus that, apart altogether from clinical difficulties, such as eliciting physical signs, recognising rashes, and so forth, there are an appreciable proportion of these cases which are undiagnosable. Such, nevertheless, is the fact, as I have endeavoured to point out, and its general recognition would be of great service. It is, indeed, only those who have not had considerable experience and given close attention to the subject who would expect every case to be referred to any of the three categories mentioned for any other than statistical purposes. The inherent impossibilities of such a course have not occurred to them.

Are experience and study of no value, then, in the diagnosis of these states? I think they are of very great value. Merely to realise the possibilities and contingencies involved in the examination of an individual case is to be on one's guard, and even though no definite diagnosis can be made the error of making a definite one is avoided. But there is more than this to be expected. If each case be intelligently regarded on its own merits and in the light of experience it will often be possible to say what no tyro can say—namely, that this or that particular case seems so far out of line from the generality of instances of diphtheria or scarlet fever, as the case may be, as to make it wise to treat it separately, and furthermore to err on the safe side therapeutically; as, for example, by giving antitoxic serum in a case that may possibly prove to be an aberrant one of diphtheria. One of the great difficulties in the administration of fever hospitals is the constant breaking out of scarlet fever in diphtheria wards and of diphtheria in scarlet fever wards, and in most instances such outbreaks can be traced to some individual the equivocal nature of whose illness had caused its real bearing to be overlooked. The mere fact of noticing that such a case was ambiguous would have prevented the outbreak. There are many minute points, often difficult to describe in language and quite impossible to impart fully, that one gets to look to for help after a time, and intangible as these may be to an outsider or one not constantly in contact with these diseases they are of great practical moment. The tint of the skin will often suggest scarlet fever; the comparative pallor of the throat diphtheria; decubitus, again, septic infection, and so on. After all has been said diagnosis in these diseases is only capable of being taught up to a certain point, and it is not till the knowledge has become intuitive that the fine points which suggest aberrance from one mean and approximation to another can be appreciated, and even this instinct is only capable of limited discrimination.

The fact remains, then, that the *nuances* between these conditions—scarlet fever, diphtheria, and tonsillitis—are so gentle that each shades off into the other not at one but at many points, and whilst this continues to be so, with the most consummate skill and the widest experience, the diagnostician can never attain a certainty in his art which its inherent disabilities forbid.

AN OBSCURE CASE OF INTESTINAL OBSTRUCTION DUE TO AN OBTURATOR HERNIA; LAPAROTOMY; ENTERECTOMY;

DEATH IN 27 HOURS FROM CARDIAC SYNCOPE AND PERITONITIS.[1]

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THERE are few subjects of more interest than those which deal with the condition of the alimentary canal producing intestinal obstruction. I have therefore thought that the case which I am about to relate might prove interesting on account of the obscurity of the symptoms and of the rarity of the form of hernia and the absence of any localising symptoms which made it possible to form any accurate diagnosis beyond the fact that there was obstruction most probably involving the small intestines. This difficulty has appeared in similar cases reported. Most of such cases appear to have been females, the attacks were generally sudden, and there has not been much distension or tenderness of the abdomen. My case illustrates the fact that it is possible to empty the rectum and colon by enemata, although complete obstruction is present higher up. The patient's extreme obesity obscured any fulness in the thigh, though a hernia was looked for. She had her bowels opened naturally the day before admission into the infirmary but had not passed flatus.

The patient, a woman, aged 61 years, was admitted into the St. Marylebone Infirmary on the evening of Dec. 30th, 1902. She stated that she had always enjoyed good health until the 26th, when she had a sudden pain of an acute nature in the abdomen, followed by sickness, which vomit appeared to be the normal contents of the stomach. She had had no constipation nor had she passed flatus. On admission her general condition was good; she was very obese, weighing about 14 stones. Her pulse was regular, her temperature was normal, and her respirations were 20. Her tongue was clean and moist, the abdomen was not distended, nor had she any localised pain. The skin was slightly jaundiced. The patient had a right reducible femoral hernia and there was nothing definite to be made out on the left side. The rectum was emptied by means of an enema and the vagina was examined. She was dieted and given a mixture of bismuth and opium and a fomentation was applied to the abdomen. On the 31st another enema of warm oil was given to the patient but was not successful and nothing was felt by the rectum. She vomited some semi-digested food at intervals. On the evening of the 31st she began to vomit

[1] A paper read before the West London Medico-Chirurgical Society on May 1st, 1903.

some doubtful fæcal matter, her tongue was dry, and her pulse was rather suggestive of peritonitis.

On Dec. 31st it was decided to perform laparotomy, before which the stomach was washed out and some very offensive matter was removed. The patient was given an injection of strychnine and morphia before the operation and she was well wrapped up. After the usual precautions had been taken the abdomen was opened in the middle line and its contents were explored systematically; the appendix was normal and the gall-bladder was not distended. On opening the abdomen distended dark small intestines presented at the wound which were covered with recent lymph. On tracing the distended gut downwards towards the left iliac fossa collapsed small intestines were seen, apparently bound down to the back of the os pubis, and while examining the intestines and surrounding parts immediately a flow of fæces welled up from the left iliac fossa; intestinal clamps were put on the intestines above and below where the fæces appeared to be escaping. On examination of the collapsed intestines (where the perforation seemed to be) they were found to be adherent to the parts just below the horizontal ramus of the os pubis, towards the direction of the obturator foramen. The upper part of the left thigh was examined just below Poupart's ligament and a distinct fulness was found on deep pressure internal to the femoral vessels. An incision was then made over the swelling and the tumour was found to consist of a piece of gangrenous omentum and was very adherent to the surrounding tissues. This was ligatured and removed; the ruptured sloughing intestines had been acutely strangulated at the entrance of the obturator foramen and on introducing the finger into the thigh wound it was found to pass into the abdomen through the obturator foramen. The clamped intestines were then brought up into the abdominal wound and it was found that the whole lumen of the strangulated gut was ulcerated through with the exception of about a quarter of an inch. The mesentery was stitched in the ordinary way and about two inches of the intestines were removed on each side of the perforation and a Murphy's button was introduced into the gut in the usual way. The abdominal cavity was thoroughly washed out with a sterilised saline solution at a temperature of 100° F. and was then closed with silkworm gut sutures. The wound in the thigh was drained with a small Keith's glass tube and iodoform gauze was passed through its lumen and the wound was closed in the thigh.

The patient stood the operation of two hours very well and she passed a good night; she passed flatus by the rectum. The temperature was 98·4° F., the pulse was 120, and the respirations were 20. She took some soda-and-milk by the mouth in small quantities at intervals of two hours during the night. On Jan. 1st, 1903, the patient's tongue became furred and she complained of abdominal pain. She vomited some dark offensive fluid about 11 A.M. and died somewhat suddenly at 2 P.M. from cardiac failure and peritonitis.

At the post-mortem examination the small intestines showed signs of intense inflammation (peritonitis) and they were covered with lymph and some portions of the gut were in a gangrenous condition. The Murphy's button gave perfect anastomosis; the drainage tube was not blocked and had passed through the obturator foramen.

The sloughing condition of the gut in this case must have been produced by the arrest of the circulation and paralysis of the muscular coats; it is evidently unnecessary for the whole circumference of the bowel to be included in the stricture to produce strangulation, as in Richter's hernia; indeed, symptoms of strangulation occur when omentum only is contained in a hernia, which I myself have seen, a fact somewhat difficult to explain, as constriction of omentum by a ligature does not give rise to symptoms and most likely these cases of strangulation depend upon the reflex irritation of the omental nerves or upon a knuckle of intestine having been strangulated at the neck of the sac and having slipped back unperceived. The above case somewhat resembles one reported by my friend and late assistant, Dr. H. Sinigar,[1] which was not diagnosed during life, when a small knuckle of intestine not more than one inch in length was strangulated in the obturator foramen. The ring of the constriction showed that the entire calibre of the intestines was not included though the strangulation must have been very severe, as shown at the post-mortem examination by the sloughing condition of the gut. One of the difficulties of reducing these obturator herniæ is evidently due to the obliquity of the canal and the small size of its deep pelvic orifice. Mr A. A. Bowlby, C.M.G., points out in his Purvis Oration[2] that the absence of the passage of flatus is in all cases of greater significance than is mere constipation. Acute pancreatitis, volvulus, colitis, enteritis, gall-stones, appendicitis, and new growths were all considered before the operation as being one of the causes of the obstruction.

St. Marylebone Infirmary, W.

[1] Brit. Med. Jour., March, 1897.

A CASE OF RETROPERITONEAL PELVIC SARCOMA.

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MR. J. H. TARGETT, assistant obstetric surgeon to Guy's Hospital, who made the microscopic examination of the tumour in the laboratory of the Clinical Research Association, regarded this case as so interesting and rare and of so great clinical importance as to deserve to be recorded in the pages of THE LANCET. No attempt is made to write a learned disquisition on the diagnosis of tumours of the abdomen—that "happy hunting ground" for elaborate clinical diagnoses—but simply to give a short record of what passed through the mind of a very ordinary general practitioner during the progress of the case.

The patient was an unmarried woman in her sixtieth year, though she looked much younger. I had seen her off and on for the last few years for various slight ailments, but there were no symptoms suggestive of pelvic disease, either of the pelvis itself or of its contents. It was only on Jan. 5th of the present year that something seemed to go wrong but it was most difficult to tell what it was. One very marked symptom was an unconquerable aversion to bread, of which up to that time she was very fond. One sometimes wonders whether such marked aversions or cravings for out-of-the-way things ought not to suggest to one that there is probably some trouble in the uterus or its appendages, or at least in their near neighbourhood, so near as to incorporate them in the mischief. I once had a case of undoubted cancer of the uterus where the patient was only happy when she had the coal-scuttle by her side and could break lumps of coal into small pieces, a great many of which she ate with evident relish. My patient being a maiden lady one shrank from suggesting a vaginal examination, nor, indeed, was there any special call to do so except that every other part of the body had been examined in the search for the cause of the symptoms but without success.

My patient did not complain of anything until Jan. 5th, when her appetite failed and she could not sleep and complained of not feeling well and of inward weakness and exhaustion, not able to talk or to bear being talked to. She had a feeling of great fulness but not much pain and could not lie on either side; after this she began to take to her bed. There was a slight evening rise of temperature and this fact, together with the great weakness and exhaustion, made me suspect that pus was being formed somewhere. I searched for it without success, once, indeed, inserting a hypodermic needle into a dull spot in the chest in case it might be an encysted empyema. Some time after this I thought that the abdomen was increasing in size and it was very evident that the superficial veins on the lower part of the abdomen on the left side were much larger than those on the other side. The left iliac region also was dull on percussion and this dulness extended for a considerable distance in an indefinite way over the abdomen, but the right iliac region was quite resonant and remained so to the last. The position and extent of the dulness did not vary with change of position. Malignant disease of, or abscess in the region of, the cæcum was therefore put out of court once for all, as well as the existence of free fluid in the peritoneal cavity, at least to any appreciable extent.

Various questions now presented themselves: Was it a tumour, malignant or otherwise, of the left ovary? The dulness, which began in that region, and the enlarged superficial veins seemed to lend support to the idea that it might

[2] Ibid., January, 1903.

be malignant disease of that organ. I did not think it could be a simple ovarian cyst. Could it be malignant disease of the fundus of the uterus? Certainly not of the ordinary kind, though it might be a case of malignant disease starting elsewhere and implicating the uterus and the upper part of the vagina, especially as now and again there had been a small amount of very foul-smelling discharge both from the vagina and the rectum. This, however, was by no means constant and was small in quantity. Was it some form of peritoneal cancer? The apparently sudden onset might have indicated the rupture of a malignant ovarian tumour and general infection of the peritoneal cavity. Was it a colloid cancer of the peritoneum? The patient had that special temperament with which I am wont to associate peritoneal cancers—intensely sympathetic, with a heart ever ready to bleed for the woes and sorrows of others. The absence of a well defined growth, the softness, and yet withal some general tenderness of the abdomen seemed to lend some support to the idea of a generalised peritoneal growth. Soon after this, however, I was able to make out a definite central tumour which eventually reached the size of an eight months pregnancy and the dulness in the left iliac region disappeared. The tumour was rather tender to pressure so that one dealt very tenderly with it; this was specially fortunate, for the post-mortem examination showed that any rough handling must necessarily have resulted in rupture of some part of the tumour. I ought to mention, however, that for some weeks she had been liable to 'heart attacks" and was unable to lie down in bed except at rare intervals and had to be propped up with pillows into almost a sitting posture. This I was inclined to attribute to reflex action due to irritation of the filaments of the vagus which I believe pass into the great sympathetic plexuses of the abdomen and pelvis and through them to the sexual organs. The post-mortem examination, however, showed that a more probable explanation was that it was due to a gradually increasing hydrothorax though both factors may have played a part. The dyspnœa was usually in the early hours of the morning and one can hardly understand why dyspnœa due to hydrothorax alone should vary in that manner. Further, the dyspnœa was much more severe and persistent in the early stages of the hydrothorax than it was when the hydrothorax had attained a large size. The chest was very carefully examined in the early stage of the illness for fluid or pus in the pleural cavities, yet one is apt to forget that though absent then there is no reason why it should not be present a month afterwards. The patient, however, was so feeble and so easily exhausted that one did not push the physical examination to too great a degree, more especially as by that time I had made up my mind that there was a malignant tumour in the abdomen. She was also very averse to any operation, even of the simplest character—preferred, in fact, to die a natural death. It was well, too, that no operation was attempted in this case, for any such attempt must have resulted in a surgical disaster of the most deplorable kind. It was well that I did not even attempt to tap it.

It may be of some interest to the Psychical Research Association to know that the month of April is a peculiarly fatal one to the family to which this lady belonged. During the last days of March we thought that it was impossible that she could live to see April, though her sister persisted in saying that she would. She did, and then, curiously enough, began to improve—the breathlessness lessened, the feeling of tightness in the abdomen was less marked, she could sleep better, she could lie down and was able to take more food and to enjoy it, and the desire for bread returned; all this even though the hydrothorax must have been increasing. It was thought now that she might live for many months, provided that the heart did not fail, for at times it was very weak. Suddenly, however, on April 30th, just after eating and enjoying a good dinner (for her) she rang her bell, and her sister on entering the room found her fighting for breath and just able to gasp out "air," "brandy," "water." She rapidly became deeply cyanotic and in a few minutes the struggle was over. On being told of the manner of her death I wondered whether it was due to sudden asystole, rupture of the heart, or pulmonary embolism.

Necropsy.—The examination was limited to the abdomen and thorax. Being in a private house and in the absence of skilled assistance the examination was not so minute as one would have liked. On opening the abdomen the first thing that struck me was the absence of the great omentum and the presence of a central tumour of the size already indicated rising up out of the pelvis. The tumour was very friable in parts, it being scarcely possible to handle it without rupturing some part; such ruptured parts to the naked eye had the appearance and consistence of thick porridge; there were also many cysts in it containing a bloody, grumous fluid, no doubt degeneration cysts. There was a small quantity of bloody fluid in the peritoneal cavity. The upper part of the tumour was white and firm and almost cartilaginous in texture. In the pelvis, where it had evidently originated, it was firmly attached to apparently the whole of the anterior aspect of the sacrum and could not be separated from it, and it was impossible to trace the large bowel or the great veins into the pelvis. The uterus was firmly welded to, and partly incorporated with, the anterior surface of the tumour, though its fundus and anterior surface could be easily traced. The Fallopian tubes were also firmly attached to the tumour though the ovaries were quite free. In fact the tumour occupied the space between the sacrum and the posterior layer of the broad ligament. On opening the chest the most striking fact was the small size of the lungs and next the large amount of bloody fluid in the pleural cavities, especially the left. Indeed, it was a wonder how the patient could have lived in comparative comfort so long with such a limited breathing surface. Had it not been that she was most carefully tended and nursed she could not have done it. The heart was small and flabby but there were no naked-eye appearances of fatty degeneration, though I regret now that it was not examined for "brown degeneration"; it was entirely free from blood clots and blood. I could not discover any sign of pulmonary embolism though the relations of the tumour to the iliac veins, together with the mode of death, suggested that possibility.

Appended is Mr. Targett's description of the microscopic appearances of the tumour: "The portion of the specimen submitted to microscopic examination had an imperfect capsule of fibrous and unstriped muscular tissues. Histologically the growth was a soft spindle-celled sarcoma of loose texture. In some places the cells were arranged in interlacing bundles, in other parts they were irregularly disposed and widely separated, as in myxomatous tissue. Small nodules and strands of hyaline cartilage were found in the firmer areas, due to the chondrification of the growth. But the most striking feature of the section was the comparative abundance of polynuclear giant cells, or myeloids; as many as 20 of these large cells could be counted in some fields, especially where the growth had a softer texture. From these facts it may be concluded that the tumour originated from the periosteum of the spine or from some fascial structure in the pelvic cavity."

In conclusion, I would only add the query, Is it possible, or probable, that this tumour originated in a "dermoid cyst"?

Oxford.

ON THE VALUE OF ASPIRIN IN ACUTE RHEUMATISM.

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IT will be agreed, I think, that most practitioners treat acute rheumatism by salicylates in some form or dose and with good success as to the relief of pain, &c., but also with occasional drawbacks such as sickness, depression, or head symptoms. It was experience of these that led me to employ the acetic ester of salicylic acid (commonly known as aspirin) and with results which I think worth a brief record by the side of the many favourable reports from abroad. The remedy is now sufficiently known to make its description unnecessary here, but its advantages may be summarised in (1) its slightly acidulous, pleasant taste;[1]

[1] Dr. F. G. Hopkins in Hale White's text-book remarks on this point: "Salicylate of soda ($C_6H_4OH\,COONa$) has, as is well known, an unpleasant sickly, sweet quality. That this depends on the integrity of the OH group is seen from the fact that methoxy-benzoate of soda ($C_6H_4OCH_3COONa$) is quite without sweetness. This latter is found to be without the therapeutic properties of salicylates, but when the hydrogen of the hydroxyl is replaced by a negative (acetyl CH_3CO) group we again get a derivative free from sweetness ..... and employed as a more pleasant substitute for salicylates"—(i.e., aspirin $C_6H_4<^{COOH}_{OCOCH_3}$).

(2) slight or non-decomposition in the gastric juice, so that it passes without causing nausea or irritation of the stomach into the intestine from which the active acid is absorbed; (3) consequent probably on differences in absorption and elimination there is much less liability to head symptoms, of which indeed the only one I have noticed, and that rarely, is tinnitus; and (4) less cardiac depression, so that although it lowers the pulse with the temperature it can be continued more steadily and with less anxiety than the soda salt. It relieves pain and pyrexia quite as well, if not better, but does not cause such copious sweating, although such effect is well enough marked after full doses.

Whilst not now discussing the etiology of rheumatism, whether meteorological or bacteriological—or the mode of action of remedies through nerve centres, or vaso motors, or as antiseptic to microbes—a reasonable conclusion is that the disorder mainly results from unhealthy metabolism contaminating the blood and secretions with toxins, and such products as glycocine, which are neutralised by, and in the case of the latter combined with, salicylic acid, to form salicyluric acid, as which, or free, it is chiefly excreted.

Some observers—Osler, for instance—recognise little or no advantage in salicylates beyond some power in relieving pain (he gives only 15 grain doses), and Pribram and others state that cardiac complications are *more frequent* than under alkaline treatment directed to lessening acidity and fibrinous coagulation.[2] Fuller's proportion of cases in which cardiac complications ensued when treated with alkali was 1 in 48, Dickinson's (without alkali) 9 in 28, and statistics from St. George's Hospital show, of cardiac cases under salicylates 1 in 12 and under full alkaline treatment 1 in 54, though the duration of acute rheumatic symptoms was much lessened under the former.[3] Hence many authorities, W. Ewart, Luff, and Burney Yeo, advocate the giving of alkalies *with* salicylates, and this plan I have sometimes adopted with aspirin, though many writers object to the combination as incompatible. It is better to give the two remedies alternately at intervals of a few hours.

It has been plausibly argued that what is good for rheumatism of the joints is so for that of the endocardium, and therefore if aspirin or salicylic treatment is sufficient for the one it ought to be so for the other; but there are these points of difference—the heart cannot be rested and it is more exposed to the influence of the contaminated blood; so whilst agreeing with Burney Yeo that hospital statistics represent more than the *average* percentage of heart mischief in rheumatism, yet I think they indicate that it will be safer to conjoin both treatments in severe cases.

The following abbreviated notes are subjoined as illustrative. For some of them I am indebted to Mr. Foster and Mr. Henderson, house physicians.

CASE 1.—A youth, aged 17 years, was admitted into the Sussex County Hospital on Oct. 4th, 1901, with pain and swelling of the hands, the feet, and the knees, and a temperature of 103° F. He was ordered 20 grains of aspirin every three to four hours and a small blister to the right knee. On the 5th the temperature was normal; on the 6th it was subnormal. The patient was free from pain and was sweating profusely; he was ordered to continue the dose thrice daily; on the 11th once or twice daily, and to take hæmatogen for anæmia. On the 23rd he was well and was able to leave the hospital, the attack having been shorter than several previous ones.

CASE 2.—A man, aged 32 years, was admitted into the same hospital on Oct. 31st, 1901, with pain and swelling of several joints, pyrexia, sweating, &c. The attack first began nine days previously after exposure. He was ordered 20 grains of aspirin every three to four hours. He was relieved by the next day and on Nov. 4th was free from pain and the temperature became normal or subnormal and continued so. On the 18th he complained only of stiffness in the joints for which he was ordered alternate doses of iodide of potassium.

CASE 3.—A man, aged 25 years, was admitted into the hospital on August 7th, 1901, with his first attack of acute rheumatism. 14 days previously he had sore-throat; six days before he had pain and swelling of the ankles, the legs, and the shoulders; he was now very helpless and pain prevented sleep. His temperature was 102° F. and his pulse 92. He was ordered 30 grains of aspirin every four hours. On the 8th he slept well. His temperature was normal. He was ordered 20 grains pro dosi. Steady improvement continued and by the 15th he complained only of weakness in one leg and of depression. The pulse was 44. He was ordered effervescing potash mixture with quinine and ammonia and was discharged well on the 31st.

CASE 4.—A man, aged 34 years, was admitted into the hospital on March 15th, 1901. He had had several attacks of rheumatism since 1886. This one began three weeks before his admission. He got better but had a relapse four days ago with pain and swelling, especially of the wrists, and now had a systolic apex bruit and friction sound. His temperature was 103° F., his pulse was 120, and he was sleepless. 20-grain doses of salicylate of sodium every four hours were prescribed and he was better by the 19th, but he had a relapse on the 23rd and again, after improving, on the 30th. On April 3rd 15-grain doses of aspirin thrice daily were ordered with benefit. On the 11th, when convalescent, this was changed for quinine with iodide of potassium, but resumed next day on account of a relapse. He was not up until May 1st. In this severe case some comparison between the remedies is possible but aspirin was not given in doses large enough or continued so steadily as it should be.

CASE 5.—A man aged 44 years, was admitted into the hospital on Feb. 5th, 1901. His first attack of acute rheumatism occurred two years before; this one began with tonsillitis in December, 1900. He had now pain and stiffness in the ankles, the arms, and the shoulders. His temperature was 100° F., his pulse was 88, and he had a presystolic bruit, probably old. He was treated by aperients, opium, and salicylates in 20 grain doses and was much easier with a subnormal temperature on the 8th, but he had a relapse on the 20th when aspirin—15 grains thrice daily—was prescribed. On the 23rd he felt much better; his temperature was 99° but the heart's action was weak and the urine was alkaline. The medicine was reduced to twice daily. On March 4th quinine with iodide of potassium was substituted but a relapse occurred on the next day. Aspirin was resumed in *combination* with the last with relief and continued till he was discharged well on the 21st. In this case also the dose should have been larger and more continuous.

CASE 6.—A woman, aged 31 years, was admitted into the hospital on June 7th, 1901. She had had rheumatism at the age of 15 years. The present attack began five days previously with pain and swelling of the knees and ankles, sweating, &c.; now the temperature was 102° F., the pulse 120, and there was a systolic bruit. She was ordered 30 grains of aspirin, which dose was placed dry on the tongue; the second dose relieved all pain but the third irritated the stomach and was rejected. The quantity was then halved and taken readily in soda-water with a little brandy every four hours. (In other cases it was given with mucilage or a little acetic acid.) On the 9th she was free from pain and slept; her evening temperature was 100°. On the 13th she was doing well and the remedy, given now in sugared water, was reduced to twice daily. On the 20th some relapse occurred (the menses also) and it was again ordered every four hours. On the next day the patient was better and on July 6th she went out well. The bruit was not heard; during the last fortnight the patient had also had hyno-hæmoglobin and citrate of iron with quinine.

CASE 7.—A man, aged 33 years, was admitted into the hospital on Dec. 16th, 1901. 14 days previously he had sore-throat, and for four days pain and swelling of the right foot, the knee, &c. His temperature was 102° F. and his pulse was 84. He was ordered 20 grains of aspirin every three hours and aperients. On the 17th the pain was much less and he was sweating profusely. The medicine was given every four hours. A blister to the knee was also prescribed. On the 20th he was free from pain. His temperature was normal. From the 23rd the dose was lessened and the temperature was subnormal and it remained so till he was discharged well on the 30th.

CASE 8.—A girl, aged 17 years, was admitted into the hospital on Jan. 3rd, 1902, with pain and swelling of the joints (mostly the knees and ankles) which began a month previously, when she went to bed for 14 days, then to work again, and soon relapsed. The temperature now was 100·2° F. and her pulse was 96. The tongue was coated and she was constipated and sleepless. The heart sounds were not clear and there were râles in the lungs with

[2] Nothnagel: Spec. Pathol. u. Therap., Band v., S. 99.
[3] THE LANCET, March 17th, 1900, p. 761, et seq.

cough. She was ordered aperients, one blister, and 20 grains of aspirin every six hours. On the next day the pain was relieved and the temperature was normal. On the 5th the dose was ordered thrice daily and on the 6th it was lessened to 15 grains, the pulse being 60. The effective dose for such a case was thus lessened too soon and on the 8th some relapse occurred (the menses also). The 20-grain dose was resumed every four hours and, together with salicylate of opium lotions, quickly afforded relief. On the 15th, the pulse being again 60 and the temperature being subnormal, the dose was reduced to 15 grains thrice, and later twice, daily. On the 19th and 23rd slight relapses occurred, which yielded at once to increased doses. On the 19th stiffness of the joints only was complained of, which was treated by Tallerman-Sheffield baths and quinine with iodide of potassium. On Feb. 8th she was discharged well, except for slight valvular mischief, probably old.

CASE 9.—A girl, aged 18 years, was admitted into the hospital on Jan. 20th, 1902. She had had a previous attack of acute rheumatism when seven years of age; the present one began a month previously, but she had kept up till the last three days. She complained of pain in the feet, the wrists, and the hands. Her temperature was 101° F. She was constipated and had a coated tongue. There were effusion in the left knee and a systolic apex bruit, probably old. She was ordered aperients and 20 grains of aspirin every three hours. On the 21st her temperature was normal, her pulse was 76, and the pain was much less. On the 23rd her temperature was subnormal and her pulse was 68. On the 25th her temperature was 97·2° and her pulse was 58; she had little pain, so the dose was halved. On the 29th the treatment was alternated with iodide of potassium for stiffness. On Feb. 11th the patient was discharged well, except for the bruit.

CASE 10.—A youth, aged 17 years, was admitted into the hospital on Jan. 17th, 1902, with his first attack of acute rheumatism of one week's duration. His temperature was 102·4° F. and his pulse was 72. He had a systolic apex bruit and there were pain and swelling mostly in the ankles and the knees. He was ordered 20 grains of aspirin every four hours, a blister to the knees, and an aperient. On the next day he was much easier, his temperature was subnormal, and his pulse was 60. He was ordered to alternate an alkaline iodide with the aspirin, and a blister to the region of the heart. He progressed well till Feb. 7th, when tonsillitis occurred. He was convalescent on the 14th, when syrup of hydriodic acid was substituted and he was discharged on the 20th, the bruit only remaining.

CASE 11.—A man, aged 38 years, was admitted into the hospital on Feb. 10th, 1902. In July, 1900, he was an in-patient for three weeks with acute rheumatism and mitral affection; he was treated by salicylates and the temperature fell from 102° F. to normal in 36 hours. In August he was readmitted for another three weeks and again in October till the middle of December with relapses which were more or less controlled by salicylates. (His father died from rheumatism and his brother has it.) Three weeks before admission he had sore-throat; one week previously the feet and legs became painful and then other joints. The patient was sleepless and his temperature was 103°. He had a systolic apex bruit and an increased area of cardiac dulness. He was ordered 30 grains of aspirin every four hours and a blister to both knees. On the next day, after five doses, he had great relief, "much more," he said, "than from salicylates." His temperature was 98·4°, his pulse was 80, and there was no marked depression. He was ordered to halve the dose. On the 12th the patient perspired much in the night; he was now free from pain: the temperature was subnormal and the urine alkaline, with a specific gravity of 1020. On the 15th the bruit was as before; the dulness was normal. The aspirin was continued every six hours, then thrice daily, and he recovered well without relapse, being up on the 21st and out on March 2nd. He has, however, been readmitted once since then to go through a similar experience.

Considerations of space prevent the printing of notes of some 30 or 40 somewhat similar cases, including some of pleurisy and neuralgia. Subacute and chronic cases react less favourably, but the preceding suffice to show the power of the drug to relieve without discomfort and also the necessity of using sufficient doses continued sufficiently long if relapses are to be avoided.

Hove.

THE PREVENTION OF THE RECURRENCE OF NASAL POLYPI.

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THE pathogenesis of recurrent nasal polypi, together with that of the primary growths, is still somewhat involved in mystery. It is true that the attractive field of speculative pathology has been diligently tilled, but with a few exceptions I do not think the harvest of definitely proven facts has been a very rich one. On the other hand, a study of this interesting subject, both in this country and on the continent, has convinced me that in the matter of the evolution of successful methods of treatment the labours of the clinical observer have been distinctly more fruitful. By successful methods of treatment I do not mean those procedures only which have for their aim the mere initial removal of the polypi, but rather those whose object it is to prevent the tendency to recurrence which these growths exhibit in such a marked degree. In some instances the recurrence of nasal polypi is only apparent and is due to the inaccessibility of their site of origin. The growths seem to arise most commonly from the concavity of the middle turbinated bone, from the lower part of the infundibulum, the uncinate process, or the bulla ethmoidalis—in other words, from the region of the middle meatus. Less frequently they may spring from the long free border of the middle turbinal. When, therefore all visible polypi have been removed from the nose, others may still be packed away in the recesses under the middle turbinal and may rapidly enlarge and develop after pressure has been removed.

Polypi tend to return so long as any polypoid tissue is left, so that the removal of all such residual tissue which may be visible with forceps, snare, galvano-cautery, or chromic acid is a necessary part of the treatment. The cauterisation of the particular pedicles of the excised growths is recommended by some authorities but this manœuvre has, in my experience, been very frequently impracticable as the growths often sprang from areas which were hidden from view. The coincidence of polypi with suppuration in the accessory sinuses, especially the ethmoidal cells, is a common one. One observer[1] believes that nearly all cases of nasal polypi are due to suppuration in the sinuses, but this conclusion is not in accordance with the experience of the majority of surgeons; the polypi have, indeed, in some instances been considered to be the cause of the sinus disease, chiefly by preventing free drainage from the cavities. It would be possible to quote a considerable number of instances within one's own personal knowledge in which the two conditions of sinus disease and polypi had been found in the association of probable cause and effect but the following may serve as examples.

CASE 1.—A man, aged 25 years, was sent to me at the Hospital for Consumption and Diseases of the Throat for obstruction of the left nasal cavity, discharge of pus from that side, and unilateral headache. The cavity contained several large polypi and there was also empyema of the left frontal sinus and of the anterior ethmoidal cells. The nasal obstruction had not been noticed for several months after the nasal discharge had begun to be troublesome. A modified Kuhnt's operation was done on the frontal sinus and the anterior ethmoidal cells were also curetted. When last seen, one year after the operation there had been no recurrence of the polypi.

CASE 2.—A man consulted me about the middle of the year 1902 for post-nasal discharge of pus and nasal obstruction on the left side. He gave a history which pointed to an attack of inflammation in the left sphenoidal sinus and posterior ethmoidal cells 18 months previously from which time he dated his nasal symptoms. The nose had gradually become blocked on the left side and at the time of examination the obstruction was very marked. A collection of polypi was found towards the posterior part of the cavity projecting into the naso-pharynx. The polypi were removed and the posterior ethmoidal cells were curetted. Great relief was experienced and up to the present there has been no recurrence either of the growths or of the suppuration.

[1] Grünwald: Nasal Suppuration. Translated by Lamb. London, 1900.

CASE 3.—This patient was a man, aged 32 years. There were a small collection of polypi on the right side and empyema of the corresponding antrum. The polypi were removed and the antrum was opened by alveolar puncture. The polypi recurred later. Six months after the first operation, as the antrum had not healed and the patient was anxious to get rid of the discharge, the radical (Caldwell-Luc) operation was performed and the nasal cavities were again treated. When last seen (six months after the last operations) the patient appeared quite cured of his nasal and antral disease.

Lambert Lack[2] has comparatively recently made some valuable observations on the origin and the radical treatment of polypi. He believes that these formations usually owe their origin and their tendency to recurrence to disease of the underlying bone—the morbid condition being an osteitis and a periostitis of the ethmoid. These observations have been practically confirmed by Thurston, Martin, Cordes,[3] and others, although the last-named writer (Cordes) did not in his investigations always find bone disease in mild cases of polypi on microscopic examination. The growths, therefore, according to the foregoing theory, do not arise as independent morbid formations but are of the nature of outward and visible signs of morbid processes in the subjacent bony tissues. Clinical testimony in support of this statement appears to be provided by the fact that the inclusion of a portion of underlying bone, when removing a polypus with the snare, is found to be of distinct value in reference to the prevention of recurrence. Still further evidence is forthcoming in the excellent results in many cases of systematic treatment of the whole bony area from which the polypi grow.

It is a matter of common experience that when the polypi are few in number, are of long standing, and are not complicated by sinus suppuration, treatment with the snare will often effect a cure. In these instances the initial bone disease may be presumed to have subsided. More commonly, however, and especially if the growths are numerous and a radical cure is wished for, further treatment will be required. When all visible polypi have been removed it will be necessary to expose the parts from which they grew and to cut away the diseased tissues. This will probably involve as a preliminary the removal of a considerable portion of the middle turbinal or of what represents that structure. With local anæsthesia the undermentioned procedure[4] has seemed, in my experience, to be the most rapid, the most effectual, and the least painful method of carrying out what is desired. The manner of applying the cocaine is of importance. Two long strips of sterilised gauze are dipped in 10 per cent. cocaine solution; one of these is inserted between the middle turbinal and the septum, the other is pushed within the concavity of the turbinal, well into the middle meatus, and a third strip is insinuated between the former two under the inferior border of the turbinal. After a lapse of ten minutes the operation is commenced. Luc's flat nasal forceps of the largest available size is introduced into the nasal cavity, passed to the insertion of the middle turbinal, and the portion seized is twisted and rapidly withdrawn. The major part of the turbinal can be removed by three or four such applications of the forceps, which should be made in rapid succession, the whole process only occupying a very short time. After drying the parts by packing with gauze the region which has been exposed by the removal of the turbinal can be examined and polypous remnants and other diseased tissues removed by the same forceps or by a ring knife. Luc[5] additionally advises the opening of the posterior ethmoidal cells at the same sitting with his forceps.

The results of this procedure, with regard to the prevention of recurrence, have been very favourable, cases being cured in two, or at most a few, sittings, which would otherwise have had to endure weeks of treatment. If a recurrence does take place it is not of a severe nature and is usually more easily treated than is the primary condition on account of the modification which has taken place in the anatomy of the parts. Other methods differing in detail but having the same object as the above—viz., the treatment of the parts from which the polypi grow—have been attended with good results. General anæsthesia may, if necessary, be employed.

Lastly, the most advisable method of treatment for severe cases of multiple polypi, with a history of several operations for their removal, is still somewhat *sub judice*. On the one hand, there is little doubt that when polypi are thoroughly removed in the ordinary way the intervals between the recurrences in certain cases tend to become longer and longer. On the other hand, one knows of instances where it has been felt necessary to clear out the nasal passages at comparatively short intervals for a period of years. For the severer cases of polypi, especially if associated with suppuration and extensive ethmoidal diseases, Lack[6] has recommended a procedure which, briefly stated, is as follows. Under a general anæsthetic all polypi are removed, as is also the middle turbinal if still present. When there are many polypi but the extent of the disease is unknown, Lack advises commencing treatment by removing some of the larger growths with the snare under cocaine. This often enables a better view of the parts to be obtained and a more accurate estimate of the extent of the disease to be formed. The essential part of the operation is the thorough scraping of the lateral mass of the ethmoid with a large ring knife, by which large masses of polypi, degenerated mucous membrane, and fragments of bone are got away. Scraping is continued until all friable tissue is removed, the finger being introduced from time to time to ascertain the condition of the parts and the progress made. The field of operation is undoubtedly a perilous one, the vicinity of the cribriform plate being especially worthy of respect. It is, of course, highly advisable that the operator should have a very intimate knowledge of the region and that he should carefully abstain from using any force in an upward direction; also that a large ring knife should principally be employed. My own experience of this operation for severe cases of polypi, although somewhat limited, has, on the whole, been very encouraging. In no instance have any dangerous symptoms occurred. A temporary black eye has resulted on one or two occasions and in a case at present under observation there was after the operation a considerable outgrowth of granulations in the right nasal cavity which looked like a rapid return of the disease. These, however, have become considerably less and seem to be in process of spontaneous disappearance. The operation would not appear to be applicable to elderly patients.

Manchester.

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[2] Lack: Proceedings of Laryngological Society of London, December, 1900, and Journal of Laryngology, July, 1900.

[3] Cordes: Archiv für Laryngologie, 1900.

[4] "Luc's method." The forceps is made in three sizes by Vaast, 22, rue de l'Odéon, Paris.

[5] Luc: La Presse Oto-Laryngologique Belge, May, 1903.

[6] Lack: Cheyne and Burghard, Manual of Surgical Treatment, Part v., London, 1902.

ON THE NATURE OF CURSCHMANN'S SPIRALS.

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CONSIDERABLE difference of opinion still exists as to the nature of the spirals present in the sputum of asthmatic persons. Dr. J. F. Goodhart in his article on asthma in Allbutt's System of Medicine[1] expresses the opinion that they are allied in nature to the plugs in the sputum of plastic bronchitis. So far as I have been able to find he is the only writer who holds this opinion. I have for some time had under observation a patient who suffers from asthma-like attacks and whose sputum presents features which lead me to believe that some forms (if not all) of the spirals are, as Dr. Goodhart suggests, of similar origin to the casts of fibrinous bronchitis.

The patient is a woman, aged 26 years, of delicate constitution. There is nothing of special interest in her family history. She first began to suffer from attacks of dyspnœa 18 months ago. At first the attacks occurred at rare intervals but gradually they became more frequent and prolonged until at one time she was almost constantly troubled with wheezing and troublesome cough and the more severe attacks occurred at intervals of about a fortnight. The patient was always forewarned of the onset of an attack by a feeling of tightness in the chest with diminution, even to cessation, of the previously abundant sputum. This discomfort increased during the day until towards midnight the dyspnœa became severe and the cough had

[1] Allbutt's System of Medicine, vol. v., p. 236.

entirely ceased. After an interval of from 12 to 24 hours the cough reappeared, the difficulty in breathing gradually subsided, and the characteristic sputum gradually increased in quantity. Cyanosis was never marked but the distress was severe, with profuse perspiration and subsequent prostration. During the next day or two cough was frequent and the sputum was very copious but afterwards gradual improvement took place, though the bronchitic symptoms never really disappeared before another attack occurred.

The most striking characteristic of the sputum is the large number of Curschmann's spirals present. Shortly after an attack as many as a dozen are coughed up in the course of 24 hours, but they gradually diminish in number until shortly before the next attack only one or two are coughed up in the same interval. Associated with these spirals there are casts of the smaller bronchi. These I have never observed very complete in their branchings. The parent stem is usually of about the diameter of a crow quill and may or may not have small side branches but it always divides dichotomously and the resulting divisions again branch, but further than this I have rarely seen, and the casts in this case have never shown the finer ramifications of the bronchial tree seen in the very complete specimens that have been described. Nevertheless, there can be no doubt about the nature of the plugs in this case.

Examined in the fresh state the parent stem of the casts appears to be practically solid but the branches are hollow. This is also well shown by hardening in a mixture of equal parts of methylated spirit and glycerine and subsequently soaking in 50 per cent. glycerine which swells up the tissue, shrunken by the action of the spirit, to its former size. By this treatment the arrangement of the branches is well preserved and their tubular character is quite evident. A portion of the main stem hardened in alcohol, sectioned in paraffin, and stained, shows a structure of irregularly concentric layers probably of a fibrinous nature in which are embedded numerous nucleated cells. In the fresh state the smaller branches show a well-marked spiral arrangement indistinguishable practically from that of the true spirals. In the parent stem this spiral arrangement is absent. The spirals resemble those figured in von Jaksch's[2] "Clinical Diagnosis" and are all of the coarse variety without a central thread. The spiral markings both in the casts and in the true spirals seem to be due to the arrangement of the cells as much as to the spiral mucus (?) threads. The cells, which are very numerous and of varying size and character, are arranged in the form of a dense spiral band. Many of them show eosinophile granules.

There is one important point which has not, I believe, been previously described. I have noticed that some of the spirals show a division into two distinct branches at one end. There is no doubt of this. Spirals often interlace in a manner which suggests branching but is not really so. In true division the branches occur at the end of the spiral, are short (about one centimetre) and of equal length, and are not more than half the diameter of the main stem. Weak alkalies dissolve the greater part of the translucent envelope of the spirals as of the casts, leaving a much finer thread which retained the spiral arrangement quite unchanged. This is no doubt due to the fact that the spiral is so largely formed by organised cells which are unaffected by the weak alkali. Strong solutions of caustic potash dissolve both casts and spirals almost completely.

The present case appears to be, if one may use such a term, a "half-way house" between true asthma and plastic bronchitis. The character of the dyspnœa—forced inspiration followed by very prolonged and difficult expiration—is that of asthma. On the other hand, the long duration of each attack and the presence of true casts in the sputum point to fibrinous bronchitis. It is well known that occasionally spirals are found in the sputum of patients suffering from the last-named disease (Osler[3]), and also that fibrinous casts sometimes show spiral markings on their terminal branches. In my case the spirals are undoubtedly the more prominent feature of the sputum.

The following quotation from Hoffmann[4] is of interest in this connexion: "I am forced to assume that the terminal branches of the bronchial tree end in spirals. For when we consider that in the act of inspiration the lungs are distended and that the bronchi must follow this distension, can it be imagined that a long straight tube should be distended longitudinally? It is much more probable that they resemble corkscrews and it is thus readily explained how the bronchi can follow the distension of the lungs. A very beautiful metallic cast of the bronchial tree which I saw at the Leipsic Pathological Institute shows this corkscrew like course of the larger branches of the bronchi and suggests the assumption that the finest branches have a similar course. ..... It is now understood how the fibrinous casts which originate in the fine bronchi occasionally show a spiral arrangement."

The most generally accepted theory of the formation of asthmatic spirals is that they are due to a twisting movement given to a mass of mucus in one of the bronchial branches. Yet it is difficult to understand how this spiral movement may arise. The present case leads me to suggest that these structures are in reality casts of the smaller bronchial branches similar in nature to the casts in true plastic bronchitis. In support of this theory I may draw attention to the following points: (1) fibrinous casts frequently show spiral terminations; (2) these terminal spirals are practically identical in structure with the true Curschmann spirals, also present in the sputum; (3) the spirals, at least in this case, owe their peculiar structure largely to the arrangement of the great number of cells present; and (4) some of the spirals terminate in two equal branches of smaller diameter than the parent stem. This fact alone makes it difficult or impossible to believe that these structures are formed by a spiral movement.

Hull.

[2] Clinical Diagnosis, third edition, p. 115.
[3] Osler's Medicine, p. 634.
[4] Hoffmann: Nothnagel's System of Medicine, Diseases of Bronchi and Lungs, p. 234.

NOTES ON A CASE OF CHRONIC ULCER OF THE STOMACH; EXCISION OF ULCER; POSTERIOR GASTRO-ENTEROSTOMY; CHOLECYSTOTOMY.

BY W. McGREGOR YOUNG, M.A., M.D. GLASG.

Now that the operation of gastro-enterostomy has become so common the publication of a single case of the kind may seem uncalled for, although the case, even from the operative point of view, is not without its noteworthy features, but I have thought it might be of sufficient interest to bear reporting if, reversing the usual order of precedence, an account were given of what was found at the time of operation and the lesions present were compared with the signs and symptoms noted previously and the history of the case up to that time.

The patient, a man, aged 54 years, a sufferer from long-continued dyspepsia, had lost weight to the extent of two stones within the last year and showed on examination evidence of pyloric obstruction. An operation was advised after consultation with Mr A. W. Mayo Robson and Dr. A. G. Barrs and to this he consented. Accordingly, on Feb. 18th Mr. Mayo Robson operated, the patient having been on sterile food for two days beforehand and the mouth attended to with a view to oral asepsis. The stomach was found to be considerably dilated, the gall-bladder tense and full, and the tumour which had been imperfectly felt was a much enlarged and thickened pylorus. So hard and dense did this latter feel that it was impossible to say from sight or touch whether it consisted of new growth or not. In order to determine this Mr. Mayo Robson opened near the pylorus by an incision in the long axis of the stomach and exploring with the finger found it to be what it certainly did not look like from without, merely hypertrophy. A search was made further along the lesser curvature for the cause of this overgrowth and a very well marked and typical specimen of chronic ulcer was found on the posterior wall two and a half inches from the pylorus. The portion of stomach on which was the ulcer was clamped, the ulcer itself, of about the size of a sixpence with hardened edges and a bluish-grey floor, was excised, and the mucous membrane was brought together by a continuous suture of green catgut. The incision in the wall of the stomach was stitched up vertically in the usual way with a double row of sutures, mucous and serous. Although the evident cause of the trouble had been discovered and removed it was thought wise lest other ulcers were present to perform a

gastro-enterostomy. This proved, however, a matter of no little difficulty, for on attempting to reach the posterior wall of the stomach it was found that owing to an evidently long persisting perigastritis numerous adhesions had formed which prevented an easy exposure, the lesser peritoneal sac being obliterated and the transverse mesocolon firmly adherent to the stomach. A sufficient free surface of stomach for manipulative purposes was hard to find. A considerable amount of tension was consequently present after the junction of the jejunum and stomach was effected. There is little left of moment to relate; the patient made an excellent and uninterrupted recovery. It should, however, be added that the gall-bladder was emptied of its dark inspissated meconium-like bile, in which were innumerable tiny little gall-stones, and was drained in the ordinary way for two or three weeks.

I saw the patient the other day and he told me that his appetite and digestion were "simply marvellous"; he ate and drank anything not alone with impunity but with enjoyment. The patient had suffered for 20 or more years from dyspepsia, at first with intermissions of good digestion, but for the last two or three years almost constantly. Going back on his old symptoms—that is, prior to a year ago, so far as his memory could serve him—they come to this: heaviness, then epigastric pain, but not severe, shortly after a meal, continuing up to the next meal when relief came again for a time, belchings which sometimes gave him ease, regurgitations of sour mouthfuls and pyrosis, vomiting very rare, appetite good, and bowels constipated. These are evidently the symptoms of hyperchlorhydria and later chronic gastric catarrh.

The lesions which showed themselves at the operation were an ulcer near the pylorus, which does not preclude the possibility of others being present elsewhere, great hypertrophy of the pyloric sphincter, a much dilated stomach, posterior perigastric adhesions, and a gall-bladder showing signs of biliary catarrh, full of inspissated bile and tiny gall-stones or grit. What part the latter played in his symptoms it is impossible to say, but at any rate I could elicit no story of attacks of biliary colic. How far, then, did the lesions found correspond to the symptoms complained of by the patient and the signs presented on examination?

1. *Pain.*—It was seldom severe, it was never intense, nor was it of a burning or sharp cutting kind, but rather there was present a sense of constriction and intense discomfort and distension; it began half an hour after a meal and increased during the next two hours. It was felt first in the pit of the stomach and afterwards lower down but also across the chest and radiating to the shoulders. It was relieved completely by the next meal, so much so that for half an hour he thought he was going to escape in spite of all his past experience to the contrary. It was not made worse in the dorsal decubitus. These are not the symptoms one would expect from pyloric ulcer, but the posterior perigastric adhesions by hindering the motility of the organ may help to explain them.

2. *Hæmatemesis.*—He never vomited blood nor so far as he knew did he ever pass any by the bowel. This is against a diagnosis of ulcer.

3. *Vomiting.*—He very rarely vomited and only after attempting to take something heavier than usual. It was always a most painful process; the latter is not surprising in view of the adhesions, but in view of the dilatation one would have expected frequent vomiting.

4. *Belching.*—This was most troublesome and distressing too, in so far as it seldom brought much relief.

5. *Regurgitation.*—This was a constant sequel to every meal. It consisted of a greasy fluid with undigested bits of food.

These are quite in keeping with stagnation of food in a dilated stomach.

And now as regards signs.

1. *Tenderness.*—There was very little elicited anywhere, not at all over the pyloric end of the stomach. The only tender spot was over the greater curvature, its lower border, and to the right.

2. *Tumour.*—I think this was very doubtfully palpable at the pyloric end. Mr. Mayo Robson thought he could detect an enlargement there.

3. *Dilatation.*—This was thought likely from the obvious splashing three hours after a meal and was proved by distension with gas, the lower border extending from two and a half inches to three inches below the umbilicus.

4. *Peristalsis.*—This was very clearly seen as a well-marked wave along the whole length of the stomach and did more to convince the observer of pyloric obstruction than any other sign or symptom.

5. *Loss of weight.*—This was the most alarming symptom of all. He had lost two stones in weight in the last year. It was really this that made him come to me and it was this that made me urge the advisability of immediate surgical interference. It more than suggested malignancy but yet, as events proved, the loss in weight was really the result of starvation. He had so reduced his rations in quantity and specially in nutritive value that he was literally starving himself, living as he did on beef-tea and gruel to escape pain, although not able to avoid discomfort. Obstinate constipation and a certain loss of strength and vigour may also be noticed. Lavage he bore badly, but a washing out of the stomach showed free hydrochloric acid.

To sum up, a diagnosis of ulcer of the stomach near the pylorus could evidently only have been made by deduction. The dilatation pointed to pyloric obstruction and the peristalsis made it fairly certain. As the obstruction was only partial and intermittent this was probably due to spasm. The most likely cause of this spasm was ulcer. So that, after all, one might have arrived at a correct diagnosis on general grounds, apart from such refinements as are implied in a chemical analysis after an Ewald's test breakfast of the contents of an Einhorn's stomach-bucket, although one would have to confess that many of the symptoms were of no help but rather a hindrance to such a conclusion.

Leeds.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF PLEURO-PNEUMONIA ACCOMPANIED BY ABDOMINAL DISEASE.

BY PERCY ROSE, L.R.C.P. LOND.,
PRESIDENT OF THE PLAISTOW AND CANNING TOWN MEDICAL SOCIETY.

THE patient was a healthy, well-nourished girl, five years of age, and was last at school on Feb. 2nd. Her mother had noticed that the child's face, legs, ankles, and body were becoming swollen and took her to a hospital on Feb. 5th, where she was examined, given a bottle of medicine, and told to come again in two weeks' time if she was no better. On the evening of the 9th local medical advice was sought as the "child seemed choking." She was then in bed and complained of pain over the lower half of the abdomen, which was tender on pressure; she called out frequently for the chamber utensil but passed nothing beyond a little flocculent stained mucus. There was considerable straining but no melæna. A lump was felt in the right iliac fossa. Her temperature was 98° F., her pulse was rapid, and her respirations were 50 per minute. The face was pale and the throat and the pharynx were normal. There were râles all over the front of the left chest and the resonance of both lungs was impaired posteriorly. A diagnosis of early intussusception was made and her removal to a hospital was advised. During the night the straining ceased and on the following morning the child's condition was lower. Her temperature was 98° and her pulse and respiration were respectively 180 and 80 per minute. At the hospital tubular breathing was noted at the left base and no intussusception was felt. The child died the same evening from pneumonia.

On the next day a post-mortem examination showed both lungs to be entirely solid and shrunken in appearance, and in many places, chiefly over the left apex, there was a layer of purulent lymph. On opening the abdomen no intussusception was apparent, but on removing and laying open the intestines the region of the ileo-cæcal valve was seen to be affected. For about one inch to one and a half inches on both sides of the valve there were recent crimson extravasations of blood in the submucous tissue, presenting flame-like patches half an inch in diameter. The lower inch of the ileum was œdematous and the crowded solitary glands were swollen and presented a sago-like appearance with a crimson background of extravasated blood. There were similar extravasations in the adjoining mesentery. The

remainder of the intestine and other organs were normal. The intestinal appearances were only compatible with the theory of a small intussusception which had slid back.

The case presented several interesting features—namely, the preliminary general swelling, the absence of serious symptoms four days before death (as was shown by the child's dismissal from the hospital for two weeks), the subnormal temperature, the pallor of the countenance, and the post-mortem appearances of the lungs and ileo-cæcal region. These all point to a pleuro-pneumonia of excessive virulence and the virulence in my opinion was caused by the intestinal condition.

Seven cases of pleuro-pneumonic diseases simulating abdominal trouble were published in THE LANCET[1] last year and the abdominal symptoms were explained on the theory of referred pain. The present case might have been put under the same heading if the post-mortem examination had not revealed a definite abdominal lesion. It is noteworthy, however, that out of the seven cases two had sustained blows on the abdomen, one had non-perforated gastric ulcer, another had a definite history of the same complaint, and a fifth patient had been constipated for 12 days. In the present case the abdominal trouble probably acted as a culture ground for pathogenic organisms which, when set free, aided and increased the virulence of the pleuro-pneumonia from which the child died, and the thought occurs that those seven reported cases of pleuro-pneumonia may not merely have simulated but have been actually accompanied or preceded by abdominal disease.

Canning-town, E.

SEPTIC CONJUNCTIVITIS.

By R. W. DOYNE, M.A. OXON., F.R.C.S. ENG.,

READER IN OPHTHALMOLOGY IN THE UNIVERSITY OF OXFORD; CONSULTING OPHTHALMIC SURGEON, RADCLIFFE INFIRMARY; SENIOR SURGEON, OXFORD EYE HOSPITAL; AND ASSISTANT SURGEON, ROYAL EYE HOSPITAL, SOUTHWARK.

FROM time to time among private patients of the better class one sees cases of acute inflammation of the conjunctiva with great thickening of that tissue and marked enlargement of the papillæ of both upper and lower lids, resembling somewhat in this respect, only more so, a very acute follicular condition provoked by atropine; the inflammation is usually limited to the palpebral conjunctiva, but there is a tendency for it to pass round the fornices and to involve the ocular conjunctiva. There is free lacrymation and the discharge is more serous than purulent. Ptosis, more or less marked, is present. There is generally tenderness or enlargement of the pre-auricular glands and a good deal of constitutional disturbance is present. The condition is generally limited to one eye. Ophthalmic surgeons of experience will, I think, at once recognise the affection I am attempting to describe, but those text-books that notice it are, as a rule, rather vague and some, I believe, classify the condition under acute trachoma, with which disease, however, it has hardly anything in common. It yields slowly but with certainty to nitrate of silver, sulphate of copper, or, better still, to argyrol (30 per cent.) in the course of from three to eight weeks. It is only when treated by hot fomentations, cocaine, or tying the eye up (too often the case) that the affection becomes exaggerated and extends to the cornea, producing a "soppy" condition of that structure and sometimes small infiltrated ulcers towards its margin.

I have for many years seen isolated cases of this form of conjunctivitis occurring so far as my memory serves me in the spring, summer, and autumn rather than in the winter. My reason for drawing attention to it now is the fact that this summer, at any rate in the Oxford district, there has been quite an epidemic of such cases. In two days recently I have seen three severe instances quite unconnected with each other. It would be interesting to know if this has been the experience of surgeons in other parts.

The bacteriology of this affection should be interesting; it cannot be very contagious, for with only ordinary precautions it is limited to one eye. The train of symptoms suggest a septic origin and I have sometimes imagined I could trace a connexion with mangy dogs or cats but this is little more than speculation. Perhaps others will be able to define a cause with more authority.

Oxford.

[1] THE LANCET, August 2nd (p. 280) and 16th (p. 440), 1902.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv., Proœmium.

ST. GEORGE'S HOSPITAL.

A CASE OF GANGRENOUS APPENDICITIS WITH PNEUMONIA AND EMPYEMA; THREE OPERATIONS; CONTINUOUS IRRIGATION OF THE PLEURAL CAVITY; RECOVERY.

(Under the care of Mr. H. S. PENDLEBURY.)

FOR the notes of the case we are indebted to Dr. A. J. Jex-Blake, house surgeon.

The patient, a boy, aged 17 years, was admitted into St. George's Hospital on Oct. 21st, 1902, complaining of acute pain in the abdomen, vomiting, and constipation. The attack began very suddenly on Oct. 17th, while the patient was working a carrier tricycle up hill, with severe pain in the lower part of the abdomen. On the morning of the 18th he started work but he soon had to desist because of the violent pain and vomiting that ensued and he took to his bed. The pain and vomiting continued on the 19th, 20th, and 21st, and when he was admitted his temperature was 104·4° F., his pulse was 125, his respirations were 50, and his bowels had been confined since the 18th.

On examination the abdomen was found to be quite rigid and board-like, not moving at all on respiration. There was no distension and marked tenderness in the right iliac region was present. Immediate operation was decided upon, gas and ether were given, and Mr. H. S. Pendlebury opened the abdomen in the right iliac region by an oblique incision three inches long. The deeper layers of the abdominal wall were œdematous and as soon as the peritoneal cavity was opened a small quantity of thin, brown, puriform, very offensive fluid welled up from it. Considerable matting of the parts about the cæcum was observed and the appendix itself was not found, but about an inch above the cæcum a whitish gangrenous patch of the size of half-a-crown was seen on the outer aspect of the colon, with a corresponding gangrenous area on the abdominal wall in contact with it. Further disturbance of the parts was deemed inadvisable; the cavity was packed with gauze and the lower three-quarters of the wound were closed with fishing-gut sutures and dressings of cyanide gauze and wool were applied. The plug was removed under gas 48 hours later, the wound being dressed daily and the general condition of the patient showing considerable improvement. His temperature was down to the normal on the 24th, when a few of the stitches were taken out, and on the 28th the remaining stitches were removed. On each of the latter dates several drachms of whitish inoffensive pus came away from the wound. On the evening of the 29th the patient's breathing suddenly became embarrassed and he complained of acute pain over the right chest in front; there was no rigor but slight herpes was observed on the upper lip. On examination there was dulness to percussion over the right base and axilla, with loss of vocal fremitus and breath sounds, and a few sticky râles were heard; no friction sounds were detected. The temperature ran up to 103 4° and on the next morning it reached 104·2°. Dr. W Ewart was called in consultation to the case and diagnosed empyema. Aspiration was performed in the right posterior axillary line in the dull area but nothing more than a few drops of blood could be drawn off. On the 31st the temperature was down to 100°, the pulse was 148, and the respirations were 48 and laboured. Aspiration was performed in the fifth right interspace half an inch below and outside the nipple and two pints of thin, creamy-brown very offensive pus were withdrawn. On the next morning chloroform was administered and Mr. Pendlebury resected one and a quarter inches of the fifth right rib just outside the nipple line; 25 ounces more pus escaped. The empyema cavity was found to lie in between the lobes of the lung and consolidated lung tissue was felt behind it. A large empyema tube (No. 14) was inserted and the usual dressings were applied

During the next eight days the temperature was 102° to 103° in the evening and not below 100° in the morning. A small amount of pus came daily from the abdominal wound and a few ounces of offensive blood-stained discharge issued from the empyema cavity. The patient's general condition remained fairly satisfactory and he perspired a great deal. During the night of Nov. 8th his temperature, taken twice under the tongue, fell from 102·4° to 95° and he became a little cyanosed and collapsed and vomited slightly three times. On the next day his aspect had improved considerably and his temperature was normal; his appetite was good, he was free from pain, and he had a slight cough with occasional expectoration of white frothy mucus. Three days later the sputum increased considerably, being pink in colour and typically pneumonic in consistency. On the 16th Dr. C. Slater, bacteriologist to St. George's Hospital, reported that the sputum contained "numerous organisms which are morphologically identical with the diplococcus pneumoniæ" and it retained its pneumonic character for the next 16 days.

Throughout the rest of the month of November and through December, 1902, and for the first half of January, 1903, the patient showed little sign of improvement; the empyema cavity remained open and able to hold over a pint of water and discharged a few ounces of pus daily; the abdominal wound refused to heal in its entirety and a sinus passing directly downwards for two and a half inches was formed. In the middle of December gas was given and the sinus was opened up and a few minute fæcal fragments were washed out from the bottom of it. At the end of December a system of continuous irrigation for the empyema cavity was set up at Dr Ewart's suggestion; a stream of boiled water at a temperature of 100° F. was run into the cavity at a depth of six inches from the surface of the chest through an indiarubber tube and was allowed to flow out again by a second tube from a depth of an inch. The rate of flow was regulated by a stopcock to about a gallon per hour; after the flow had continued for about half an hour the effluent was quite clear. The current was maintained usually for 24 hours at a time and caused little discomfort beyond an aching in the top of the chest and at the root of the neck on the right side; the pain was not diminished by the substitution of normal saline solution or boric lotion for the boiled water but was not sufficient, as a rule, to keep the patient awake at night. After a fortnight's trial the continuous irrigation was abandoned as it did not appear to benefit the patient materially.

On Jan. 9th Mr. Pendlebury opened up the appendicular sinus by a three-inch incision along the scar left by the operation of Oct. 21st and the appendix was found to be scarred and fixed by matted adhesions deep in the false pelvis, while there were also a number of adhesions about the cæcum. He removed the appendix, sewing a peritoneal sleeve over its stump, and closed the wound with fishing gut sutures. All the stitches were out by the eleventh day and the wound healed satisfactorily. The empyema cavity continued to discharge a few ounces of pus daily and the patient's temperature was still raised at night; his general condition, however, improved and his weight increased from 6 stones 2 pounds on Dec. 17th to 7 stones on Feb. 11th, when he was sent to Atkinson Morley's Convalescent Home at Wimbledon for three months. At this time the upper part of the right lung showed some signs of re-expansion but the right chest wall had fallen in considerably and it showed marked deformity. During March and April the discharge from the empyema cavity grew less and less and finally ceased about the end of May, at which time the patient weighed 9 stones.

Remarks by Dr. EWART.—I was asked by Mr. Pendlebury to see the case at two critical stages—first on the second day of the acute symptoms, when the orthopnœa, the cyanotic flush, the profuse sweating, and the prostration were such that there seemed to be but slender hope, and again after many weeks when the prospect appeared to be one of progressive exhaustion. The patient's recovery from both dangers is no less remarkable than the ultimate complete re-expansion of his thorax.

1. The diagnosis of "latent empyema," to which I was led by the clinical history and the physical signs, was borne out by the character and the quantity of the pus which was pumped out of the chest two days later. The partial pneumothorax which was also diagnosed may be regarded as an explanation for the sudden accession of respiratory distress, in addition to the pneumonia identified by the pneumonic character of the expectoration which persisted for two weeks. It was obvious from the result of the first aspiration that the lung extended low down and that it must have been compressed as well as congested. The failure to reach the pus which was situated in front of the lower lobe might have led to the dulness being attributed entirely to pneumonia. As, however, aspiration had been practised only posteriorly the diagnosis of empyema was not abandoned but on the strength of it I recommended the anterior operation which proved successful.

2. Continuous irrigation with boiled water, the details of which were so skilfully carried out by Dr. A. J. Jex-Blake, suggested itself to me as a method of treating an unhealthy empyema and a lung which I believed to be ulcerated, and of favouring the re-expansion of the thorax. The first of these objects was attained and I was impressed by the appearance of general improvement which I observed in the patient. But judged by the temperature chart, by the weighings, and by the patient's own report, the treatment could not be regarded as a success. Yet it did no harm and its cessation was followed by sufficient improvement to enable the patient to undergo the radical operation, after which the gradual drying up and the closure of the empyema were to be merely a matter of time.

Remarks by Mr. PENDLEBURY.—From the surgical point of view this case is distinctly of interest. First, it illustrates once again the fact that a large perityphlitic abscess may be formed without destroying the appendix, and I have little doubt that even if the abdominal wound had healed the boy would have had other attacks of appendicitis and would have had to undergo a subsequent operation for the removal of his appendix. It would probably have been yet another of those cases from a number of which Mr. W. H. Battle drew so many useful and valuable deductions. As it was, the persistence of a sinus obliged me to perform a second operation to remove the appendix. Secondly, as Dr. Ewart has pointed out, the operator should never be satisfied with aspirating the chest from behind only. After resecting a rib and examining the chest I was at once struck with the position of the abscess. I could feel compressed lung above and compressed lung below, and behind the great fissure being held open by the purulent material.

It is very difficult to say from such data as pulse, temperature, and respirations whether continuous irrigation was a positive help to recovery, but I have little doubt that it prevented a good deal of septic absorption by continually diluting and washing away the septic material. At any rate, the general condition of the patient improved.

In June I saw the patient after his return from the seaside. His weight had increased to over nine stones and the re-expansion of the chest was almost complete.

LIVERPOOL STANLEY HOSPITAL.

A CASE OF MEDIASTINO PERICARDITIS.

(Under the care of Dr. J. LLOYD ROBERTS.)

A BOY, aged five years, was sent into the Liverpool Stanley Hospital with general anasarca and was said to be suffering from Bright's disease. From his history he appears to have been a healthy child up to three months before admission, his only illness having been an attack of bronchitis when nine months old. About three months before his admission the patient began to lose his appetite, to stay indoors more, to be less inclined to play, and to become, as his mother said, "very quiet, which was an unusual thing for him." At this time it was also noticed that he was getting thinner. A medical man was consulted and he advised a course of cod liver oil but no improvement followed. Five weeks before admission the boy complained of abdominal pain and had diarrhœa and vomiting. The pain ceased after a day or two but the diarrhœa and vomiting continued for some time. The mother noticed, also, that the boy's face began to swell and that his urine was diminishing in quantity. At that time the abdomen was not swollen but about a week later it was discovered to be so and his feet and legs also began to swell. Three weeks before admission an occasional cough came on and this had latterly become worse. The swelling of the legs and abdomen had gradually increased and the urine had continued to diminish.

On admission the patient, in spite of the history of wasting, was found to be a fairly well nourished boy with well-marked anasarca all over the body. His face and eyelids

were puffy. His hands, feet, and legs were swollen and œdematous. His scrotum and abdomen were distended. The temperature was subnormal, 97·2° F. His respirations were rapid and short, 34 to the minute. There was no dulness over any part of the lungs. Coarse râles and rhonchi were audible on inspiration and expiration over the whole of the chest, front and back. His pulse was small and regular, 82 per minute. Cardiac dulness was increased slightly upwards and to the right. The cardiac sounds at the apex were normal; those at the base seemed somewhat faint. There were no bruits and no pericardial rub. The abdomen was distended and the umbilicus protruded. There was no tenderness. The liver dulness extended three and a half inches below the ribs in the nipple line. There was dulness on percussion in both flanks and a thrill was easily obtained. There was considerable œdema of the abdominal walls. During the first 24 hours in the hospital the patient passed only two ounces of urine. This was high coloured, acid, deposited a large proportion of urates, and contained no albumin.

The diagnosis did not at first seem at all clear. The appearance of the patient with the puffiness of his face and the swelling of the legs and scrotum immediately suggested the correctness of the diagnosis of Bright's disease; but the condition of the urine, which was quite free from albumin and differed from the normal only in quantity, precluded that view. The slow, regular pulse with absence of cardiac murmurs negatived the suggestion of cardiac disease. The slight increase of cardiac dulness with feebleness of the cardiac sounds at the base suggested the possibility of pericardial effusion, but that in itself would not account for the patient's condition. It was clear that there was some serious obstruction to the boy's circulation and that obstruction could after a time be more or less accurately located. It was evidently above the junction of the hepatic veins with the inferior cava, as shown by the enlargement of the liver. Then the œdema of the face and hands showed that it also affected the superior cava. It appeared, therefore, that the obstruction was either in the right auricle or pressed against the auricle and kinked the inferior cava in its passage through the diaphragm. The absence of any bruit made the latter the more probable explanation. The patient lived only 13 days after admission. During this time, with occasional apparent improvement, the failure of circulation gradually increased and the boy became more and more water-logged, the œdema being particularly marked in the abdominal walls and the lumbar region. During his stay he had a constant troublesome cough with respiration ranging from 28 to 48 per minute. The temperature was subnormal throughout except on the day of death, when it reached 100·8°. The pulse was regular and varied between 82 and 120, being as often below 100 as over it. In spite of the extreme backward pressure on the kidneys the urine throughout was extremely scanty, the average daily amount being only four and a half ounces, and only once was a trace of albumin found.

Necropsy.—On removing the chest wall there was seen immediately behind it an irregular mass filling the anterior mediastinum. This was firmly adherent in front to the sternum and ribs and behind to the outer surface of the pericardium and the structures in the median line. The consistence was generally fibrous but in several parts the mass was caseating and in two or three places had actually broken down into thick caseous pus. The largest of these cavities was almost globular in shape, of about the size of a hazel nut, and had imbedded itself under the arch of the aorta. The mass also insinuated itself backwards, pressing against the right auricle, the vena cava superior, and the pulmonary veins, the obstruction of which vessels had produced all the symptoms noticed during life. Microscopically, thymus gland tissue was found in the mass and the inflammatory process appeared to have originated in the neighbourhood of that organ. The two layers of the pericardium were firmly adherent throughout and considerably thickened. The heart and its cavities were small and there was no evidence of endocarditis. The liver was very much enlarged and typically nutmeggy. The kidneys were congested but to the naked eye presented no pathological change. There was no evidence of tubercle in the lungs or mediastinum.

Remarks by Dr. LLOYD ROBERTS.—This case presents a very fair instance of the typical signs of the acute form of mediastino-pericarditis as met with in children and illustrates the termination when the acuteness of the process leads to caseation and softening instead of the chronic indurative changes met with in the case of adults. The actual formation of pus, however, must be a rare occurrence, for although several cases of caseation have been reported in children in none of them is there any mention of further softening. One point of interest in the physical signs in this case was that the œdema of the abdominal wall was much greater in proportion to the amount of ascites than is usual in cases of anasarca from valvular disease. I have noticed the same thing in another case of intrathoracic obstruction and it occurs to me that it may be a point which might be of help at times in arriving at a correct diagnosis.

One other point. At the necropsy on my patient it appeared that it might have been a very feasible operation to trephine the sternum and to evacuate much of the caseating and breaking-down material and thereby relieve the pressure on this boy's circulation. Should I meet with another case as acute as this I should certainly consider the propriety of surgical exploration.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Presidential Address.—Tumour of the Choroid in an Eye with old Choroiditis.—Tumour of the Choroid associated with Iritis.—An Anomalous Case of Tobacco Amblyopia.—The Pathological Anatomy of the Plaques in Epithelial Xerosis.

A MEETING of this society was held on Oct. 29th, Mr. J. TWEEDY, the President, being in the chair. The presidential address will be found in full at p. 1280.

Mr. E. NETTLESHIP described a case of Tumour in the Choroid in an Eye with old Choroiditis. A woman, 24 years of age, had lost the use of the right eye from inflammatory glaucoma. The eye was removed in 1894 and when last heard of six years later she was in good health. The possibility of tubercle was indicated by a half-sister suffering at the age of 12 years from peritonitis and an abscess in the pubic region. Vision in the eye in question was defective at 15 years of age on account of detachment of the retina and secondary cataract. As it remained painful for from eight to ten years and a bulging behind the ciliary region with dilatation of vessels was observed the eye was removed. On examining the globe a staphyloma was found extending nearly from the attachment of the external rectus to the optic nerve, the corresponding portion of the choroid being occupied by an angiomatous sarcoma made up of round, oval, and spindle cells, pigmented and having between them wide blood spaces. Surrounding this was a cholesterin-bearing stratum and an outer fibrous epithelial layer covering about a quarter of the surface. The optic nerve was atrophied and there were outlying nodules in the sclera. These features and the history suggested an origin in tubercle and hæmorrhage.—Mr. PARSONS thought that such a case was almost unheard of. Fuchs described sarcomatous growths associated with cholesterin but they were of doubtful nature. Leber cited cases of this association with shrunken globe and definite cyclitic changes. He thought himself that the condition resembled necrosis in a sarcomatous growth.

Mr. J. H. FISHER described a case of Tumour of the Choroid associated with Iritis. A woman, aged 52 years, had her left eye excised on Oct. 5th, 1902. Six years before there were detachment of the retina and cataract apparently traceable to a blow. The eye was blind and painful and the tension was raised. There was a small vascular spindle-celled growth near the entrance of the optic nerve with hæmorrhage and pigment showing signs of necrosis. A column of tumour cells could be traced along the tract of a ciliary nerve. Mr. Fisher described the lymph spaces and currents and the continuity of the two sides at the chiasma and suggested that sympathetic irritation might be due to transudation from the sound eye to supplement the nutrition of the injured one and cited several cases in support of this view.

Major F. O'KINEALY, I.M.S., described an anomalous case of Tobacco Amblyopia in a man, aged 42 years and single, who had had syphilis. In August, 1900, he tried spectacles but his vision deteriorated and in September,

1901, it was greatly impaired. He had been a great smoker for nine years, accounting for 500 Burmah cheroots of a cheap and rank quality per month. With a reduction in the use of tobacco and alcohol and the use of strychnine he regained his sight and also weight which had diminished. Vision in each eye was reduced to $\frac{6}{9}$ and Jaeger 18. There were central defect in each eye and limitation of fields both for white light and colour with a large scotoma in the right eye and several smaller ones in the left. Tobacco and alcohol were cut off and strychnine and iron were given with pilocarpine. On Jan. 19th, 1902, vision was $\frac{6}{6}$ and Jaeger 1 in each eye with the aid of glasses, though the fields for white and red were still contracted and the multiple scotomata had run together into a complete ring, colour perception being still defective. Major O'Kinealy also cited another instance in a Eurasian from the same cause. Vision was $\frac{6}{9}$ and Jaeger 18 in each eye with loss of fields for green and yellow, improving in two months to $\frac{6}{6}$ and Jaeger 1 with disappearance of scotoma and return of colour appreciation.—Mr. W. LANG referred to a statement by Dr. V. H. W. Wingrave that he had observed a corresponding defect in hearing in tobacco-smokers suffering from amblyopia, which had improved with the vision on giving up smoking.—Mr. NETTLESHIP commented on the peculiarity in the reduction of the fields as vision improved.—Mr. W. T. HOLMES SPICER asked whether syphilitic retinitis had not something to do with both cases.—Mr. JOHNSON TAYLOR combated the observation as to tobacco deafness; he had observed no such defect in his own cases.

Mr. M. S. MAYOU described the Pathological Anatomy of the Plaques in Epithelial Xerosis, which he attributed to the adhesion of a Meibomian bacillus resembling that in smegma, the presence of kerato-hyaline granules, and mucoid changes with keratinisation of the epithelium, citing six cases.—Major H. HERBERT said similar changes occurred in other mucous membranes. He had met with many characteristic instances where there appeared to be a tendency to desquamation of mucous membrane. The eye was first affected, then the larynx, causing a peculiar alteration in the voice; the urinary tract was also attacked as evidenced by the occurrence of large epithelial flakes in the urine. He attributed these bad cases of xerosis to an absence of mucous cells in the epithelial lining.

The following cases and card specimens were shown:—

Dr. G. H. GOLDSMITH: A case of Retinitis Proliferans.

Mr. W. ADAMS FROST: An Ophthalmoscope for Demonstrating the Fundus Oculi.

Mr. R. W. DOYNE: A case of Varicose Retinal Veins with Thrombosis.

Mr. R. W. DOYNE and Mr. S. STEPHENSON: A case of Retinitis Circinata.

Mr. W. H. H. JESSOP: A case of Proptosis.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Presidential Address.—Simulation of Hip Disease.—Ruptured Ovarian Cyst.—Personal and Family History of Patients.—Exhibition of Cases and Specimens.

THE first meeting of the present session of this society was held on Oct. 23rd, Mr. C. RICHARDSON, the President, being in the chair.

The PRESIDENT in his inaugural address referred to the importance of encouraging cheerfulness in many forms of illness and said that the medical attendant could not do this effectually if his own nerves were below par. In restoring jaded nerves nothing was so effectual as pleasing exercise in fresh air. Walking alone was not sufficient. It was wanting in the needful zest and apt to grow monotonous. He considered that golf was the pastime best adapted to the needs of the medical man and instanced the opinion of a leading American surgeon who said that "it was his duty to his patient that when operating he should be at his best and that his nerves could not be at their best unless he had regular doses of golf." Whatever the form of exercise it should be taken regularly and the pastime must be sufficiently entrancing entirely to lure the thoughts for the time being from the groove of the daily task. Whilst alcohol was not needed by the young and vigorous it might be useful to the weakly and those in the decline of life, if taken with care and discretion. He was strongly of opinion that usually it should be taken only with food and he gave a striking instance of the effect produced on the brain by a small quantity of alcohol taken on a perfectly empty stomach. Alcohol taken before exertion was detrimental, but afterwards in the stage of exhaustion by restoring equilibrium to the jaded nerves it tended to give comfort, cheerfulness, and health.

Mr. T. PRIDGIN TEALE read a paper on Disease of the Bursa over the Trochanter Major and its Simulation of Disease of the Hip.—The PRESIDENT, Dr. A. A. MCNAB, Mr. E. WARD, and Mr. E. TROTTER joined in the discussion, and Mr. TEALE replied.

Dr. R. ALCOCK read a paper on Ruptured Ovarian Cyst followed ten months later by intra-abdominal sarcoma. The patient, who was 34 years of age, was suffering from abdominal enlargement when she received a blow from the handle of a washing machine in December, 1902; she was seized with pain and the abdomen increased rapidly to its utmost capacity. Laparotomy was performed on Dec. 21st at the Goole Cottage Hospital and the abdomen was found to be distended with thick slimy fluid exactly like the contents of an ovarian cyst. A cystoma of the left ovary was removed; it was an oval multicystic growth about 12 inches long and six or eight inches wide. Recovery from the operation was uneventful. Death took place from cachexia and vomiting on Oct. 3rd, 1903—i.e., little more than nine months after the ovariotomy. A partial post-mortem examination revealed the existence of a round-celled sarcoma of the peritoneum following the folds of the peritoneum and the omentum. There was likewise a sarcoma of the right ovary of about the size of a small orange. The appearances suggested that the peritoneum had become generally infected by the cystic fluid which escaped into the abdominal cavity in December, 1902.—Mr. WARD, Mr. B. G. A. MOYNIHAN, and Dr. T. KILNER CLARKE took part in the discussion.

Dr. A. MANTLE read a paper on the Importance of a Thorough Investigation of the Patient's Personal and Family History in Disease. The personal history was important as to the kind of life which was lived, particularly in connexion with the amount of food and alcohol consumed and the occupation followed. A knowledge of previous illnesses was important but care should be taken in accepting the statements made by patients. The influence of season and temperature upon some patients was worthy of attention. Some patients were very subject to constrictive changes in the peripheral circulation through cold and practically felt well only in a warm temperature, whilst others showed symptoms pointing to capillary dilatation, such as exophthalmic goitre, erythromelalgia, and some other disturbances of the sympathetic, and a class including many fat people felt quite warm and comfortable in the colder weather. The family history enhanced the value of the personal history. Some families were short-lived, their tissues degenerating early. Inheritance played a most important rôle in the resisting power and longevity of the cells constituting tissues and nothing showed the law of transmission more than that highly specialised tissue the grey matter of the brain and spinal cord. Neurotics ought to be dissuaded from marrying neurotics and consumptives from marrying at all.

Mr. G. CONSTABLE HAYES showed cases to illustrate the Action of Radium and Radiographs to show the Advantages of the X Rays for the purpose of Diagnosis.

Other cases and specimens were shown by Mr. WARD, Dr. A. G. BARRS, Dr. J. B. HELLIER, Dr. T. WARDROP GRIFFITH, Mr. HARRY LITTLEWOOD, Mr. WALTER THOMPSON, Dr. E. F. TREVELYAN, and Mr. R. LAWFORD KNAGGS.

HUNTERIAN SOCIETY.—A clinical meeting of this society was held at the London Institution on Oct. 28th, Dr. F. J. Smith being in the chair.—Dr. J. H. Sequeira showed four patients suffering from various Syphilides. One of them was a girl, aged 16 years, whose nose, upper lip, and palate had been the seat of gummatous ulceration. Comment was made upon the rarity of tertiary ulceration in congenital syphilis. The patient had been treated at a hospital as a case of lupus and the parts had been scraped with disastrous results. There was distinct evidence of congenital syphilis in one upper incisor tooth. The ulcers had healed in a month with iodide of potassium and mercury taken internally and iodoform applied locally.—Dr. T. Glover Lyon in reference to this case said that he thought that the syphilis was acquired.—Dr. Sequeira, in reply, pointed out that the first manifestations occurred at the age of 13 years

and that there was an undoubted Hutchinson tooth.—Dr. Lewis A. Smith showed a case of Lymphatic Leukæmia. The patient was a man, aged 47 years, who first noticed enlargement of the cervical glands ten months ago. He had always previously enjoyed good health. He now showed great enlargement of the cervical, axillary, and inguinal glands; there were no pain or tenderness and little, if any, pericarditis. The spleen could not be felt, the liver was a little enlarged, but the other organs appeared healthy. The blood count showed 2,500,000 red corpuscles and 250,000 white cells per cubic millimetre; 97 per cent. of the hugely increased white corpuscles were lymphocytes. A great improvement was made under treatment with large doses of arsenic.—Dr. Bertrand Dawson showed a woman suffering from Syphilitic Perihepatitis which had produced a large tongue-shaped Riedel's lobe. She had had many miscarriages. She had greatly improved under potassium iodide. At one time there had been definite localised peritonitis around the liver. Dr. Dawson could not entirely exclude malignant disease of the liver because of the great number and hardness of the nodules on it but the patient's good general health did not support this view.—Dr. Smith said that the case seemed to him to be one of intermittent hydronephrosis because great variations in the tumour were reported to be associated with variations in the urine.—Dr. Le Rossignol said, however, that actual measurement of the urine did not confirm the patient's account.—Dr. Dawson then showed a woman with an undoubted Riedel's Lobe of the Liver probably due to tight corsets.—Mr. Barnard pointed out that if Riedel's lobe were taken to mean a tongue shaped process projecting downwards from the lower border of the right lobe of the liver then there were three varieties: (1) that due to corsets; (2) that due to enlargement of the gall-bladder; and (3) that due to syphilitic perihepatitis and scarring of the liver. The cases shown by Dr. Dawson illustrated two of these varieties.—Dr. Smith showed a man, aged 51 years, who 27 years ago met with an accident to one testicle, after which an abscess formed there; this had healed at last, leaving hard lumps in the testicle and cord. There was now a lump in the right side of the abdomen which was undoubtedly the right kidney, probably considerably enlarged and tuberculous.—Dr. W. H. Kelson showed a woman, aged 38 years, the posterior pillars of whose fauces were adherent to the pharyngeal wall and to each other in the middle line. The condition was believed to be due to a severe attack of scarlet fever when a child. The patient suffered very little inconvenience and was unaware of the presence of anything abnormal.

THERAPEUTICAL SOCIETY.—The first annual meeting of this society was held at the Apothecaries' Hall on Oct. 27th, Sir William Thiselton-Dyer being in the chair.—The following officers were elected for the ensuing year: President: Sir William Thiselton-Dyer. Vice-President: Dr. J. Rose Bradford. Treasurer: Dr. S. C. Griffith. Secretary: Dr. T. E. B. Brown. Dr. J. H. Bryant was elected on the council and Mr. Peyton Beale Mr. E Dennis Vinrace, and Mr. Chattaway were confirmed on the council, having been elected to fill vacancies.—Dr. Harrington Sainsbury then read a paper on the Action of Bodies in the Particulate State with special reference to the action of carbon, of which the following is an abstract. The importance of the physical state of aggregation as a factor in the action of medicines upon the tissues was shown. Given an affinity between the substance and the tissues the dependence of the reaction was upon (1) the vibration rate of the particles; (2) the density or molecular crowding; and (3) the extent of surface presented by the substance. The three states of matter—solid, liquid, and gaseous—were contrasted in respect of these qualities, the conclusion being arrived at that the liquid state was the most active and that the solid state (in proportion to the insolubility of the substance) was the least active. The action of solid bodies on the tissues was analysed according as the substance was (1) soluble but undecomposable; (2) insoluble but in part decomposable into a soluble substance; and (3) wholly insoluble and wholly unchangeable. Carbon was a type of Class (3). Its mode of action by virtue of its mechanical action and by virtue also of its powers as an absorbent was considered, the conclusion being arrived at that neither of these explains the effect produced by carbon. Details of experiments in evidence of the small part played by absorption were given and it was concluded that the action of carbon must depend principally upon a peculiar surface action as yet unexplained.—The President thanked Dr. Sainsbury for his very important and interesting paper on the molecular action of carbon which resembled in some respects that of chlorophyll on the gases which form the food of plants.—Dr. Ince seconded the vote of thanks to Dr. Sainsbury and also proposed a vote of thanks to the President. This was unanimously agreed to.—After the paper Mr. Chattaway showed a splendid specimen of Radium and narrated Some Experiments with X Rays and High-Frequency Currents.—Mr. Bryant Sowerby of the Regent's Park Botanical Gardens exhibited some interesting specimens of Chinese Medicinal Teas as well as of Drugs and Medicinal Plants.

MIDLAND MEDICAL SOCIETY.—The annual meeting of this society was held at the Medical Institute in Birmingham on Oct. 21st, Dr. H. W. Langley Browne, the President, being in the chair.—On the reports of the council and the treasurer being received, the following officers were elected for the ensuing session: President, Dr. Robert Saundby; treasurer, Mr. John Garner; and honorary secretaries, Dr. J. Douglas Stanley and Mr. Leonard F. Gamgee.—At the conclusion of the general meeting the first ordinary meeting of the session was held.—Dr. Stanley showed a specimen of Cardiac Aneurysm. The patient was a woman, aged 72 years, who was admitted under his care at Queen's Hospital, Birmingham. The cardiac impulse was in the fifth and sixth left intercostal spaces and outside the mid-clavicular line; it was weak and fluttering in character. The first sound was muffled and the pulse was irregular and feeble. The vessels were degenerated. The patient suffered from increasing œdema and ascites appeared. The irregularity of the cardiac action became more marked and although a murmur developed in connexion with the first sound there was a want of proportion between this feature and the very serious condition of the heart. There was slight albuminuria, the specific gravity of the urine being low. The diagnosis was progressive cardiac dilatation due to chronic myocarditis. Death occurred from cardiac failure. On post-mortem examination the heart showed a well-marked bulging to the left with a localised pericardial adhesion. Closer examination revealed a well-marked aneurysm of the left ventricular wall in which was a large mass of clot. The ventricle at this point was much thinned. There was marked chronic myocarditis of the whole ventricular structure; the coronary vessels showed slight degeneration. The diffuse myocarditis was confirmed microscopically. Dr. Stanley considered that the cause of the aneurysm was myocarditis, the pericardial adhesion being secondary and mechanical.—Mr. J. F. G. Pietersen read an interesting and instructive paper on the Medical Certification of the Insane. He described cases of difficulty and the best methods of dealing with them from the legal as well as from the medical point of view. He strongly emphasised the great importance of asylum treatment for all cases of mental disease.—The paper was discussed by several members.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—The annual dinner of this society was held on Oct. 13th, Dr. H. Angus, the President-elect, being in the chair. About 70 members and guests were present. Previously to the dinner an address was given by Mr. Rickman J. Godlee on Some Conditions leading to Chronic Septic Absorption.—The first meeting of the present session was held on Oct. 20th, Dr. Angus, the President, being in the chair.—The President delivered his opening address, the subject selected being Types of Dyspepsia. In summarising his conclusions he said that dyspepsia was essentially due to functional derangement of the nervous system. In dietetic treatment fats were to be avoided when the gastric secretion was already deficient, but the more digestible forms of fat were indicated in cases where secretion was excessive. Animal proteids were more digestible than vegetable proteids but much depended on the stage of gastric digestion which had been reached at the time when different foods were taken.—Mr. J. T. Crowe showed a case of Pott's Disease of the Spine with Paraplegia which had been treated by costo transversectomy. The case had been operated on by Dr. W. H. Brook of Lincoln. The patient was a lad, aged 19 years, who had a well-marked angular curvature in the dorsal region. After treatment for a considerable time with plastic jackets he rapidly lost the power of walking and finally of sensation in the lower limbs. The sphincters were affected. The

knee-jerks were present. The operation was described in detail. The patient was now able to walk well and had recovered sensation. He was wearing a steel spinal support. —Mr. W. H. Horrocks read notes on a case of Pregnancy complicated by Uterine Fibroids which he had treated by abdominal hysterectomy. In performing the operation Mr. Horrocks had ligatured one uterine artery and had put a ligature around the other before incising the uterus. As soon as the child was delivered the ligature around the second uterine artery was tightened and there was practically no loss of blood. The child was alive and the mother made a good recovery.

GLASGOW OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held on Oct. 28th. Dr. J. Nigel Stark, the President, being in the chair.—Dr. Parry demonstrated a Tumour of the Ovary which was composed of myomatous tissue and was exceptionally large. He also showed a Tuberculous Salpingitis the removal of which necessitated the resection of the piece of intestine adherent. Part of the cæcum and a second piece of small intestine had also to be resected. The patient did well. Sections of the diseased tube were exhibited.—Dr. Russell showed, for Dr. Edgar, a Myoma of the Ovary and a Tumour of the upper part of the Rectum and Sigmoid Flexure, also a Fibroid Uterus complicated by Carcinoma of the Cervix. —Dr. Teacher showed, for Dr. Christie, a simple Papilloma of the Nipple. The patient was 34 years old. The rarity of such growths was remarked upon.—Dr. Russell showed, for Dr. Kelly, a seven months Fœtus from an Extra-uterine Pregnancy. The history of this case was as follows. There were symptoms of ordinary pregnancy. At the end of the third month the patient had an attack of severe pain, sickness, &c. This attack was repeated in two weeks and again in two months, when fœtal movements ceased. The fœtus was partly macerated and the placenta was degenerated. An Unruptured Tubal Pregnancy of the Fourth Week was next exhibited. A minute embryo was found in the amniotic cavity. Sections of a Primary Carcinoma of the Ovary with secondary involvement of the tube and peritoneum were shown.—Dr. Teacher gave a lantern demonstration of Chorion Epithelioma and Allied Conditions.—A series of Instruments, principally modifications of the Bossi dilator, were exhibited.

EDINBURGH ROYAL MEDICAL SOCIETY.—A meeting of this society was held on Oct. 30th, Dr. P. F. Shaw, the senior President, being in the chair.—Dr. Low read notes on a case of Addison's Disease without Pigmentation. The patient complained of numbness of the feet and swelling of the hands and face. His cerebration was slow, his skin was harsh, coarse, and dry, his temperament was melancholic, and his circulation was extremely feeble. He had also gastro-intestinal trouble. The case was diagnosed as one of myxœdema and thyroid feeding was used. Under this treatment he improved for a few days but symptoms of thyroidism supervened and it had to be stopped. The patient then got gradually weaker and the case terminated fatally by heart failure. The necropsy showed fatty degeneration of the heart and the liver. The right suprarenal capsule was absent and the left one was greatly atrophied. The peculiarity of the case was that there was no pigmentation.—Dr. Dunbar read notes on a case of Splenomedullary Leucocythæmia. The patient was a middle-aged woman and her chief complaint was weakness. There was very marked leucocytosis, the increase being most marked in the polymorphonuclears and in the myelocytes. She was treated with arsenic and after several months' treatment in hospital was discharged greatly improved.—Dr. Campbell read notes on a case of Hysterical Ischuria. The patient was a young woman and her case was very like one of acute Bright's disease. The amount of urine passed by her daily was very small but she had no symptoms of uræmia. The daily excretion of urea was likewise very greatly diminished. She had numerous stigmata of hysteria.

ABERDEEN UNIVERSITY MEDICAL SOCIETY.—A meeting of this society was held on Oct. 28th.—Mr. James Clark read a paper entitled "Gynæcological." He discussed at length puberty and the climacteric period. The ovaries were the chief factor in the changes associated with puberty, as was shown by the case of a child, aged 15 months, who had hair on the mons Veneris, menses, and an abdominal swelling; removal of the ovaries led to the patient regaining the normal appearance of a child of that age.—Mr. A. D. Pringle read a paper on Internal Derangements of the Knee-joint. In miners and football and tennis players displacement of the semilunar cartilages (most often the internal) frequently resulted from prolonged flexion and then sudden extension, or from flexion followed by a simultaneous twist and extension in the two latter cases. Pieces of thickened synovial membrane were sometimes snipped off by the membrane getting caught between the bones. Treatment for displacement was manipulative, instrumental, or operative, the last being the best. Strong antiseptics should not be used. Sterile normal salt solution was the safest. The finger should not be introduced into the opened knee-joint if possible. They could not always observe this rule as foreign bodies frequently got stuck about the crucial ligaments.

NEWPORT MEDICAL SOCIETY.—A meeting of this society was held in the board room of the Newport and Monmouthshire Hospital on Oct. 28th. The following clinical cases, specimens, &c., were exhibited and discussed: (1) A case of Lupus under Treatment by Roentgen Rays; (2) Knee-joint with Effusion, the result of gonorrhœa; (3) a Calculus removed by Suprapubic Cystotomy; and (4) Photographs and Roentgen-ray Pictures of a case of Carcinoma of the Clavicle. —Mr. J. Lynn Thomas, C.B., read a paper on Prostatectomy, giving his experience in cases on which he had operated by Freyer's method.

Reviews and Notices of Books

The Alien Immigrant. By Major W. EVANS GORDON, M.P. (late a member of the Royal Commission on Alien Immigration). With map and numerous illustrations from photographs by the Author. London: William Heinemann. New York: Charles Scribner's Sons. 1903. Pp. 323. Price 6*s.* net.

THIS book, which deals with a matter of great difficulty and complexity, is an honest attempt to bring before the public both aspects of a question which has been the subject of prolonged and bitter controversy. Major Evans-Gordon has made the question of the Hebrew migration to the West peculiarly his own and the book is the outcome of a long-continued inspection of the conditions of the aliens in the East-end of London, of painstaking inquiry during a journey in Eastern Europe undertaken when Parliament rose in the summer of 1902, and of the part he took as a member of the Royal Commission on Alien Immigration. The majority of the alien immigrants whom this country receives are the homeless poor of Eastern Europe—Jews who leave their countries in consequence of some form of persecution or from the knowledge of the inferior position they occupy and with the hope that their descendants may be both educated and free. Although Major Evans-Gordon states in his preface that his object is to put both aspects of the case before the public as impartially as he can, yet a study of the work shows us that the weight of his experience is altogether thrown into the balance which urges immediate legislation. While he is scrupulously fair in his treatment of the Jewish population, yet, taking into consideration that trades and occupations are overstocked, he thinks it right to press on the attention of the public that these worthy descendants of Jacob are supplanters and that the Christian fares as the Canaanite fared. "He is expropriated." The Jews are, as he says, a race apart and he lays stress on the evil which must result from the rapid inflow of a population accustomed to ignore sanitary requirements and to overcrowd, both of which evils are aggravated by the abiding separatism of the race.

The possibility of legislation becoming necessary was considered by the House of Commons in 1889 but the author points out that the problem both as regards the number of aliens and the area affected is now beyond all comparison graver and more urgent than it was 14 years ago. The necessity for action cannot be more forcibly illustrated

than by the extract from the report of the Jewish board of guardians for 1901 and by the figures published by the Board of Trade which the author quotes. The figures show that, leaving out the year 1901, the immigration of Russian Poles and Roumanians has increased nearly 400 per cent. and the increase which caused so much anxiety to the Jewish community in 1900 was surpassed in 1902 by 3074, the total amounting to 21,013. The tide of ill-considered immigration therefore continues and is steadily increasing in volume. The author repeats Dr. Herzl's warning to us in London "that we are not at the end but at the beginning of the Jewish immigration" and quotes the authority of the Bishop of Stepney who says that East London is growing more and more poverty-stricken.

The author points out that the immigration now taking place is vitally distinct from the coming of the Huguenots and other Protestants who became merged in the population. The Hebrew people form a colony permanently distinct—"a race apart, as it were, in an enduring island of extraneous thought and custom." Including the children born of foreign parents living in this country he estimates the number of aliens in the East-end to-day to be not less than 88,000. East of Aldgate is practically a foreign town where in the streets it is an exception to hear the English language spoken, while in hundreds of houses a single room serves as workshop, kitchen, bedroom, and living-room, and no matter at what hour of day or night the passer-by hears the machines and through the windows, by the light of a dim lamp, sees the victims of the sweaters, imported from Vilna or Lodz, bending over their work. The aliens in the East-end have already taken up the most varied avocations. The author says it is not an exaggerated forecast to say that every considerable commercial centre in England will be confronted with the problem of congestion, sweating, and "the aloofness of Israel" if the present conditions of free and unregulated immigration continue.

During his tour Major Evans-Gordon passed from St. Petersburg to Dvinsk in the Jewish pale, thence to Riga, Libau, Vilna, Pinsk, Warsaw, Lodz, Cracow, Bucharest, Galatz, and, returning *viâ* Lemberg in Galicia to Berlin, ended his journey at Hamburg. At Vilna he saw the Jewish Ghetto in all its original picturesque squalor but he says he observed little in Vilna more horrible than he has seen in Whitechapel. It is not necessary to visit Russia to see the horrors of the Ghetto—they are here in our midst, daily increasing, the just reward of an inert public.

In the main the emigration to England comes from the lowest stratum of the Jewish society in the congested towns. From Poland the emigrants to England are, as a rule, drawn from the most necessitous class and from Roumania from the poor and incapable. The law requires everyone to obtain permission before leaving Russia; the procedure is complicated and expensive but there is the alternative for the outgoing traveller to get himself smuggled across the frontier. By the latter means all persons absconding from justice, deserters from the army, and others escape and it is clear that the undesirables and criminals of whom we have so much complaint in London come chiefly by this route. Of the other aliens who come to our shores from different countries many are merchants and skilled craftsmen whom no sane person proposes to impede but concurrently there proceeds a systematic incursion of criminals and vicious persons for purposes of criminality and vice. The cost of maintaining these alien criminals is a serious burden on the community.

We have quoted enough of Major Evans-Gordon's book to show its worth. The sooner Parliament frames laws to prohibit the landing of these undesirables the better. The recommendations of the Royal Commission of 1902 are before the public and show that every European country exercises the right to expel and to shut out criminal and disorderly persons and paupers. We have, moreover, before us the remarkable fact that where their own colonies are concerned (the Hirsch Jewish settlements in Argentina) the Jewish authorities take the most elaborate precautions to prevent the very evils from which we are suffering in the East end of London.

On his return journey, at Hamburg, Major Evans-Gordon studied the admirable and efficient machinery by which undesirable emigrants are sifted from among those *en route* to the United States of America. He describes the system and points out that if restrictive legislation were placed on our Statute Book all emigrants embarking at that port would immediately come under similar control—a control which would not throw a penny of expense upon this country. The danger of infection induced the American people to regulate immigration by law but more recent legislation has been based on economic and social, not upon directly hygienic, considerations and is firmly supported by the American Jews themselves. The question of alien immigration is one which no Government ought longer to neglect for the evils are known to, and are appreciated by, all thinking men. It is to be hoped that this book will have the large circulation which it deserves and will bring home to the masses the absolute necessity of demanding from the candidates who solicit support at the next general election a promise to promote legislation in this direction.

A Pocket Guide to Anæsthetics for the Student and General Practitioner. By THOMAS D. LUKE, M.B. R.U.I., F.R.C.S. Edin. Edinburgh: W. Green and Sons. 1902. Pp. 148.

THE book before us contains nine chapters and an appendix and gives the usual information required by students concerning the apparatus and methods necessary for the production of anæsthesia. The apparatus, besides being mentioned in the sections dealing with nitrous oxide gas, ether, and chloroform, is also dealt with in a special chapter. For nitrous oxide gas the older methods of giving gas are described but not in detail and the many difficulties besetting the path of the beginner do not find any particular mention in the book. Although the gas-to-ether combination is described it does not appear that Mr. Luke habitually employs it as he treats of ether very fully and leads the reader to assume that the student will confine himself to the plan of commencing the inhalation straightway with ether. While upon the subject of mixtures and successions of anæsthetics we may say that we find occasional mention of the employment of the A.C.E. mixture and mixtures in which the alcohol is omitted but the book gives no very precise directions as to how they should be used and controlled. It is true that the suggestion of Lawson Tait to employ a small Clover's regulator without the reserve bag is mentioned. Ether itself finds favour with Mr. Luke. Ether bronchitis he has never seen, nor, according to him, has Mr. Tea'e met with more than one case during 20 years of practice. Mr. Luke adds: "The proportion of patients suffering from true ether bronchitis is infinitesimal," and referring to the occurrence of post-ether albuminuria he states: "There is little doubt, however, that there was pre-existing renal disease, and that neither chloroform nor ether have the power of producing the most transient albuminuria." With regard to this last statement we were under the impression that both the evidence of experiment and of clinical observation went to prove that while ether does in a certain number of cases induce transitory albuminuria unimportant in normal subjects, chloroform superinduced albuminuria only when the kidneys were diseased and when it did so often severely taxed the vitality of the nephritic structures. It is certainly not at present clear what is the exact

pathological meaning of derangement of the kidney following severe surgical procedure under anæsthesia—how much is owing to the surgical shock and how much to the anæsthetic. With regard to chloroform, quoting Syme's rule to "Watch the breathing," Mr. Luke says: "While I should be sorry if at the present day we had to rely on nothing but this, still too much importance cannot be attached to it." He adds: "One must judge of the condition of the patient from no single sign but from the breathing, condition of pupil, colour of lips, amount of chloroform given, the type of the patient, and nature of operation." Although, speaking generally, the last quotation probably represents the mental condition of the expert we venture to think that the tyro who rivets his attention upon the respiration is less likely to go astray than if he aspires to a wider range of observation. Apparatus for chloroform giving is not insisted upon, although a Schimmelbusch's mask with a drop-bottle finds favour. It might, we think, be emphasised that every administrator of any anæsthetic should be provided with a set of instruments for the performance of laryngotomy or tracheotomy, since emergencies do arise even in the hands of the most skilled anæsthetist which renders this precaution necessary. There is not much said in the book about such emergencies; probably an addition dealing with them would be useful and might replace some redundancies and unnecessary pages, such as Chapters I. and IX., the subject-matter of which could quite well be comprised in a couple of paragraphs. Eucaine-β and some other local anæsthetics are described and the methods of Schleich's and Bier's lumbar puncture are given with a very proper caution about the obvious perils of subarachnoid cocainisation. The chloride of ethyl employed for local and general anæsthesia is mentioned but we should judge fails to gain the favour of the writer of this book.

Chemistry, General, Medical, and Pharmaceutical, including the Chemistry of the British Pharmacopœia. By JOHN ATTFIELD, F.R.S., Ph.D. Edited by LEONARD DOBBIN, Ph.D., F.I.C., F.C.S. Eighteenth edition. London: Gurney and Jackson. 1903. Pp. 856. Price 15*s.*

MANY chemical students, but pharmacists in particular, will welcome this eighteenth edition of the work of Dr. Attfield who was for 34 years teacher of practical chemistry to the Pharmaceutical Society of Great Britain. With pharmacists it is quite a historic manual and there is no need to speak of its great popularity, seeing the number of editions that have been demanded. The success of this book has been due to the fact that its writer was perfectly familiar with the requirements of the class of reader for which it was specially written. Nor was this done at the expense of general principles. The book is at the same time a work of theoretical and practical chemistry, and the latter section includes analytical processes directed more or less to the examination of drugs. A glance at the admirably compiled index gives some idea of the skill which the author has shown in dealing with a very broad subject within the limits of this volume. Thus the elements of organic as well as inorganic chemistry are dealt with, a plan for the systematic examination of metallic salts is given, theory and nomenclature are discussed, alkaloids and their reactions are described, and methods for the analysis of blood, milk, and urine are given, besides a number of methods for the quantitative determination of metals and their acid radicles. Dr. Attfield has been fortunate in obtaining the collaboration of Dr. Leonard Dobbin in the preparation of this edition and we find, as might have been expected, considering Dr. Dobbin's special experience of the general application of chemical science to medicine and pharmacy, that the manual in its present revised form is in accord with the recent developments of the science. Like Dr. Attfield he is cognisant of the needs of the class of reader for which the book was primarily intended. The plan of the book is admirably conceived, the facts and principles are well arranged, while the extraordinary scope of the work, dealt with as it is in one volume, is a matter upon which both author and editor may be heartily congratulated.

Bacteriology: a Manual for Students and Practitioners. By FRED C. ZAPFFE, M.D., Professor of Pathology and Bacteriology in the Illinois Medical College; Professor of Histology in the Department of Medicine in the School of Dentistry in the University of Illinois, Chicago. Kimpton's Series of Modern Text-books edited by BERN. B. GALLAUDET, M.D. Illustrated with 146 Engravings and seven Coloured Plates. London: Henry Kimpton. 1903. Pp. 350. Price 7*s.* 6*d.* net.

THIS work forms one of a series of modern text books issued by Mr. Kimpton. With the present plethora of text books of bacteriology it is natural to the reviewer to examine whether in any new book the author addresses a special class of readers or claims any originality of treatment. Apparently in this case the book is intended for the student and the general practitioner and the author modestly claims that it enables the beginner to gain a full and comprehensive view not only of the subject itself but also of its practical relation to medicine. The book is divided into four parts, of which the first and the third are the most important. The first part treats of the technique of bacteriology and is based on a series of laboratory directions used by the author in his practical course. The third part, which appears to us to be the best, is a description of the various pathogenic bacteria in which especial stress is laid upon such points as are of clinical importance. Based as the technical part is on a practical course, we are surprised that so much stress is laid on the difficulties of making nutrient agar, as since the introduction of the autoclave they have almost ceased to exist, and astonished to find that articles for sterilisation are to be placed in the hot-air steriliser *after* the temperature has reached 150° C. Nor is there usually any difficulty, with English lenses at any rate, in examining a hanging-drop culture with an oil immersion objective. The terms "superheated steam" and "steam under pressure" are used as synonymous but to the English student at least this is misleading and it is the more important as superheated steam has not the disinfectant value of saturated steam under pressure. The student is likely also to be puzzled by the statement that chlorinated lime is used for the preparation of milk of lime and he will find some difficulty in making an intravenous injection in an animal if he acts on the instructions given. The portion of the book dealing with the pathogenic organisms is, on the whole, satisfactory, the needs of the practical physician being kept steadily in view. It seems, however, a grave fault in a text-book to speak of Coley's fluid and the typhoid "vaccine" as sera, since the student is naturally very prone to confuse these fundamentally different bodies. Unfortunately, throughout the book there are other evidences of haste which detract from its value and which should be corrected in another edition. Thus it is said that diabetes and tuberculosis are rarely found associated and we meet with the cryptic utterance that "it is strongly suspected that the lysins are the same as the agglutinins, although by no means identical." The volume contains a large number of illustrations derived from various sources, most of which are well produced, while the paper, printing, and general style of the book are satisfactory.

JOURNALS AND MAGAZINES.

Annals of Ophthalmology. Edited by H. V. WÜRDEMANN, M.D. July, 1903. Vol. XII., No. 3. Subscription for four quarterly parts, £1 1*s.* St Louis, Missouri, U.S.A.: Jones H. Parker.—The articles contained in this part are: 1. The

Accommodative Asthenopia of Donders, by George J. Bull, M.D. The author considers that the cause of accommodative asthenopia is to be sought for in irregular and disordered tension of the motor muscles of the eye and not in the ciliary muscle, and he considers that rest and treatment of the general health with the temporary use of glasses will generally suffice to relieve the state of hypertension of which the patients complain and that whilst in certain cases glasses must be always used, in others an operation regulating the relation between accommodation and convergence must be relied upon to effect a radical cure. 2. Why not employ Intracapsular Irrigation in Cataract Operations? by H. O. Reik, M.D. The answer given is favourable to irrigation but Dr. Reik considers that the aseptic fluid injected should be abundant, amounting in some cases to as much as 200 cubic centimetres, and that all the residue of the lens after the removal of the cataract should be expelled. 3. A case of Tuberculosis of the Conjunctiva, by F. Q. Henderson, M.D. In this case recovery took place without interference. 4 Papillomata of the Conjunctiva and Cornea, by R. H. Johnston, M.D. 5. A Clinical Lecture on the Art of extracting for Cataract, by C. Bell Taylor, M.D. 6. Clinical and Histological Report of a case of Purulent Metastatic Ophthalmia in Meningitis giving rise to Meningitis and Sympathetic Symptoms after 13 Years, by C. Zimmerman, M.D., and Brown Pusey, M.D. 7. Abstracts of Foreign Ophthalmological Literature, by Charles Oliver, M.D., and Clarence Van Epps, M.D.

Analytical Records
FROM
THE LANCET LABORATORY.

LYSOFORM (A NEW ANTISEPTIC) AND ITS PREPARATIONS.
(THE BRITISH LYSOFORM SYNDICATE, 56, CANNON-STREET, LONDON, E.C.)

THOUGH it has been said that the ideal antiseptic has not yet been found it would appear that lysoform is largely in advance of the bulk of antiseptic preparations considering the facts that it is not only a very powerful germicide but is also for all practical purposes non-poisonous. Moreover, as our experiments have shown us, it is an effective deodorant. It is specially adapted for medical purposes because in the first place it is freely soluble in water in all proportions and in the second it possesses decided detergent properties also. Lysoform, in fact, may be regarded as a liquid antiseptic soap. It is non-irritating and presents, in general, properties which are not harmful to the higher animals. Its germicidal efficiency has been established by several well-known bacteriologists. A 5 per cent. solution of lysoform is fatal to such organisms as the typhoid bacillus, the bacillus coli, and the staphylococcus pyogenes aureus, and a 3 per cent. solution will destroy the highly resistant spores of anthrax within 24 hours. These results are scarcely surprising having regard to the fact that the basis of lysoform is the powerful antiseptic formaldehyde. For antiseptic purposes and in medical application there are, however, several well-grounded objections to the employment of formaldehyde in the pure state, the chief of which is that it is very irritating to the skin and to the mucous membrane. Lysoform, on the contrary, although containing formaldehyde, has no such irritating action when employed diluted though still at an efficient germicidal strength. The merit, in fact, of lysoform is that whilst presenting all the antiseptic advantages of formaldehyde it is without the drawbacks of that agent in the pure state. According to our analysis lysoform consists of a potash soap containing a definite amount of formaldebyde and a small percentage of alcohol. It is a lemon-coloured solution and is viscid to about the same degree as glycerine. On evaporation we found that lysoform yields 43·04 per cent. of residue which contains the soap and some formaldehyde. Lysoform gives an excellent lather when rubbed on the hands after the manner of soap, so that when employed for antiseptic use two important agents are at work in bacteriologically cleansing the hands and rendering them aseptic. In the same way lysoform solution is admirably adapted for sterilising surgical instruments, having no corrosive effect upon metals. The solution shows an alkaline reaction. Lysoform has a feeble odour of formaldehyde but when diluted this odour is scarcely perceptible. It may be used on account of its non-irritating properties for cleansing the nasal or oral cavities and for the purpose of a vaginal or uterine douche. Internally in small quantities lysoform appears to have no poisonous action, so that relatively speaking it is non-poisonous. It forms the basis of many excellent toilet preparations, as for example lysoform soap, lysoform tooth paste, and lysoform mouth wash. We found the soap to be free from alkaline excess and, in fact, it contains on the contrary an excess of fat. Petroleum ether, according to our experiments, extracted 2·30 per cent. of unsaponified fat. The properties of lysoform are such as to render it a safe, convenient, and effective antiseptic.

"TABLOID" SPARTEINE SULPHATE.
(BURROUGHS, WELLCOME AND CO., SNOW HILL-BUILDINGS, LONDON, E.C.)

On account of its diuretic properties and of its value as a cardiac tonic sparteine has been recommended to be tried when digitalin fails. It is said, in fact, to succeed occasionally when that drug does not. The tabloid of sparteine sulphate contains one grain of the salt and is intended for administration by the mouth.

"LASSO" SOAP.
(EDWARD COOK AND CO., BOW, LONDON, E.)

"Lasso" is a soap manufactured especially for the purpose of removing grease and stains from the skin and we find that it fulfils this purpose admirably. According to our analysis it contains a well-known mechanical detergent which materially assists the soap itself. The soap basis is of excellent quality and free from alkaline excess. The soap is very effectual in removing all kinds of tenacious grime.

COCOA AND MILK.
(J. S. FRY AND SONS, UNION-STREET, BRISTOL.)

This is a convenient dietetic preparation made with cocoa and milk, consisting of a paste which, when stirred in hot water, gives at once a refreshing cup of cocoa ready for use. According to our analysis the preparation contained 8·96 per cent. of moisture, 1·40 per cent. of mineral matter, and 12·08 per cent. of fat. The preparation affords a means of readily obtaining a refreshing and nutritive beverage. It is, however, somewhat sweet.

CARLSBERG BEER.
(AGENCY, MAX HARTVIG, 46, QUEEN VICTORIA-STREET, LONDON, E.C.)

We have examined both light and dark specimens of Carlsberg beer and it is claimed that they show a relatively low alcoholic strength. The beers are pasteurised. They were found to be in excellent condition, sound, bright, and sparkling. The flavour of each was characteristic of a pure malt and hop infusion. The dark beer gave on analysis the following results: malt extractives, 4·04 per cent.; mineral matter, 0·17 per cent.; maltose, 1·90 per cent.; and alcohol, by weight 1·69 per cent., by volume 2·12 per cent., equal to proof spirit 3·71 per cent. As will be seen, the amount of alcohol is quite small and the beer may be regarded certainly as non-intoxicating. We could trace no objectionable preservatives. The light beer, of the type of Pilsener beer, gave the following results: malt extractives, 3·53 per cent.; mineral matter, 0·09 per cent.; maltose, 1·75 per cent.; and alcohol, by weight 2·56 per cent., by volume 3·21 per cent., equal

to proof spirit 5·61 per cent. This beer was in excellent condition but its alcoholic strength is decidedly higher than that of the dark specimen. Such excellent light alcoholic beverages are calculated to help the cause of true temperance.

SPECIALLY SELECTED HIGHLAND WHISKY.
(JOHN BISSET AND CO., 37, QUEEN-STREET, ABERDEEN.)

On analysis this whisky gave the following results: alcohol, by weight 42·76 per cent., by volume 50·31 per cent., equal to proof spirit 88·18 per cent.; extractives, 0·14 per cent.; and mineral matter, 0·07 per cent. In regard to secondary products the following were the results given in grammes per hectolitre of absolute alcohol present: acidity reckoned as acetic acid, 24·00; aldehydes, 25·00; furfural, 2·88; ethers reckoned as acetic ether, 42·24; and higher alcohols, 160·00. These results are quite in accordance with the statement that Highland malt spirit is for the most part used in the blending. The figures indicate some addition of grain whisky. There can be no doubt, however, that the whisky is well matured; it is soft to the palate and possesses an acceptable malty flavour. It is quite free from any suggestion of raw products and is therefore dietetically suitable.

"DARTRING" LANOLINE TOILET SOAP.
(BURROUGHS, WELLCOME AND CO., SNOW-HILL BUILDINGS, LONDON, E.C.)

The advantage of lanoline soap for toilet purposes is obvious, since it contains, according to our analysis, an excess of fat amounting to slightly over 5 per cent. and this fat, it is important to add, is chemically identical with the natural fat of the skin. Whilst, therefore, lanoline soap is an efficient detergent it does not render the skin dry and hard but soft and supple.

OLD HIGHLAND MALT WHISKY.
(THE BARLEYCORN CO., LIMITED, 3, RANGOON-STREET, CRUTCHED FRIARS, LONDON, E.C.)

We have carefully examined this whisky and believe from the results of analysis that it is correctly described as a pure malt spirit. The figures were as follows: extractives, 0·09 per cent.; mineral matter, 0·01 per cent.; and alcohol, by weight 41·80 per cent., by volume 49·39 per cent., equal to proof spirit 86·37 per cent. The following figures relate to the secondary products in the whisky recorded in grammes per litre of absolute alcohol: acidity reckoned as acetic acid, 12·0; aldehydes, 20·0; furfural, 3·08; ethers reckoned as ethyl acetate, 72·16; and higher alcohols, 240·0. The results are typical of the genuine all-malt pot still spirit. The whisky is well matured and of good but somewhat "full" flavour.

SERILA BOUILLON EXTRACT.
(AGENTS: E. S. SHULTES AND CO., 158, PALMERSTON HOUSE, OLD BROAD STREET, LONDON, E.C.)

This preparation may be correctly described as a bouillon extract but the proportion of beef nutritives in it is quite insignificant. To start with it contains, according to our analysis, 41·10 grammes per cent. of solid matters, of which no less than 37·48 grammes consist of mineral matter, containing 26·03 grammes of common salt. According to these figures there remain but 3·62 grammes of total organic matter. It is true that this contains proteids but we cannot endorse the claims made in regard to this preparation that it possesses any special or high nutrient value.

TROMMER'S EXTRACT OF MALT PREPARATIONS.
(THE TROMMER EXTRACT CO., 44, CHARTERHOUSE-STREET, LONDON, E.C.)

The basis of the preparations about to be described is an extract of malt of a very satisfactory character. We have proved *in vitro* its digestive action upon starch. The extract is of good flavour and contains a commendable proportion of the nitrogenous principles of malt. Amongst the compounds made with this active malt preparation is the Trommer extract of malt with 33 per cent. of petroleum. It is stated that the Trommer extract of malt emulsifies oils by virtue of a ferment closely allied to emulsin or lipase. Whether or not that be so there is some difference of opinion as to the value of petroleum oil at all within the human economy. It is stated by some authorities that the whole of the petroleum administered may be recovered from the fæces unchanged. Considering the chemical stability of petroleum such a result might be anticipated. The Trommer extract of malt is also combined with cod liver oil and the hypophosphites—an excellent emulsion,—with cascara sagrada, with pepsin, and with yerba santa.

MEDICINE AND THE LAW.

Suicide by Prisoners.

IN consequence of the suicide which recently took place in a cell at the Old Bailey, when a prisoner named Barmash shot himself, the attention of the Home Office has been directed to the possibility that persons upon bail may come to trial provided with means of committing suicide should the verdict prove adverse or that these means may be conveyed to condemned prisoners during the farewell interview with relatives which is usually permitted. A circular letter in which the Home Secretary conveys his views to local benches of magistrates upon this subject uses the expression "dangerous weapon" in this connexion, but no doubt the employment of poison would have to be guarded against even more carefully than that of firearms should any considerable tendency to suicide in such circumstances be observable. The Home Secretary does not, however, think the danger sufficiently serious to necessitate the searching of all bailed persons, although he recommends it as necessary in some cases. With regard to the interviews with relatives he advises that these should not take place in the court cells except where there is proper accommodation. Presumably the law relating to the sale of poisons is efficacious enough with regard to the classes from which criminals are chiefly drawn to prevent them from obtaining the means of death from the druggist without some little difficulty. It is, however, to be observed that the villain who contrives at the last moment hastily to swallow something from a phial and so to "cheat the gallows" exists principally in the works of the sensational novelist. Many cases of murder and suicide occur in which the two acts follow closely upon one another and are the result of a common impulse and there are also instances from time to time of self-destruction following the detection of crimes which in themselves suggest conditions of mental unsoundness. The majority, however, of those who deliberately violate the law either in order to enrich themselves or for some other purpose are not driven to take their own lives by the mere fear of imprisonment or even of death at the hands of the executioner.

Carbolic Acid as a Poison.

IN THE LANCET of Oct. 17th, p. 1113, attention was called to the frequent occurrence of carbolic acid as a means of suicide or as a cause of accidental death. A very similar case to the one then commented upon was inquired into at the coroner's court at Battersea on Oct. 31st. The evidence showed that the deceased, the wife of a clerk, had two bottles in her bedroom, one containing whisky and the other carbolic acid, and that in the dark she poured carbolic acid into a cup and swallowed it believing it to be whisky. There was no evidence pointing to suicide and when first found she said that she thought she had "taken something in mistake." The woman's husband stated that she was sober at the time but "had been rather a heavy drinker and had lost her sense of taste somewhat." It is easy to understand that many consumers of whisky are indifferent as to the nature of the grain from which their beverage is distilled and as to questions of maturity when one who is only "rather" a heavy drinker cannot either by taste or smell distinguish carbolic acid from it in the dark. To devise precautions that will protect such persons seems to be almost impossible. A stopper of peculiar construction rendering it more difficult to remove than the ordinary cork or stopper might be devised and insisted upon at the sale of poisonous drugs. Such a contrivance would enforce the attention of the person opening the bottle more effectually than the fact of its differing from other bottles to the touch. The use of a particular bottle or stopper, however, cannot be enforced after the completion of the purchase.

THE LANCET.

LONDON: SATURDAY, NOVEMBER 7, 1903

The Presidential Address at the Ophthalmological Society of the United Kingdom.

THE Ophthalmological Society is to be congratulated on having for its President during the ensuing year the distinguished surgeon who holds the still more prominent office of President of the Royal College of Surgeons of England. It must be acknowledged that the combined duties of the two positions will weigh heavily even upon the energies and the ability of so accomplished and strenuous a man as Mr. TWEEDY, but if we are compelled to regret that his Presidential Address to the society upon the Relations of Ophthalmology to General Medicine and Surgery and to Public Health (which will be found at p. 1280 of our present issue) has been confined within somewhat narrow limits, touching but slightly upon certain topics of great importance alike to ophthalmologists and to the public, we do so with the full knowledge that with Mr. TWEEDY actions come before words. Time may fail him to prepare addresses but we feel certain that he will always find leisure to discharge with zeal and exactitude his official duties. Mr. TWEEDY was at first inclined, he told his audience, to regard the delivery of an address as a matter of form from compliance with which he might seek to be excused, and when this suggestion was repudiated by a flinty-hearted surgical secretary he next thought of "saying ditto to Mr. BURKE" by giving utterance to a series of passages compiled from the addresses of his predecessors in the chair. Kinder counsel, however, prevailed, with the result that the President of the day made a personal addition to the edifice of thought and knowledge which has been prepared by those who had previously occupied his seat. The members of the society, while fully prepared to endorse their President's praise of the addresses given by the long list of brilliant men whose names he enumerated, would not on that account have been less anxious to receive guidance from Mr. TWEEDY himself; they were gratified to listen to his matured opinions upon the questions of the hour and only regretted the brevity of his address.

It was manifestly almost a necessity on such an occasion to say something not only on the general relations which should exist between special branches of practice and medical science as a whole but also on the particular position of ophthalmology in this respect. The new President struck a true note by reminding his hearers that the society had been formed by men who were interested in the study and investigation of diseases of the eye, not merely as local affections but also in their relations to general disease and more particularly to disease of the cerebro-spinal system, and he urged upon the younger members the importance of withstanding any temptations to narrow the scope of their corporate endeavours. While admitting the necessity of specialism he pointed out that all specialists should keep in intellectual touch with the developments of modern medicine and with the general progress of pathological knowledge, or, as the idea might perhaps be expressed in other words, that they should think of their art as a department of general medicine and surgery, and of the organs with which it deals as integral portions of a living mechanism in the derangements of which they are liable to share. He regretted an apparent tendency even within the profession, and still more outside its ranks, to split up practical ophthalmology into two parts, the optical and the medico-surgical, and declared that this tendency ought to be jealously resisted not only in the interests of our art but in those of public health. The eye is not, he urged, only an optical instrument but is a living mechanism made up of the most elaborate and most highly differentiated structures in intimate and constant relation with the cerebro-spinal system, the blood-vessels, the lymphatics, and the other organic systems of the body, living the life of the whole body, observing its modes of nutrition, participating in its diseases, and responding to its various pathological manifestations. No one, then, can safely deal with the optical defects of the eye unless he has an adequate knowledge not merely of its structural diseases but also of their relations to the whole of the organism.

The passages of the address which we have thus quoted or abbreviated will commend themselves to our readers as being demonstrably true and are in complete accord with much which we have previously written on the same subject. They leave nothing to be desired in respect either of accuracy of statement or of comprehensiveness of view, and they amount to an absolute condemnation of the "ophthalmic optician," or "optologist," or whatever he may please to call himself, and of all his ways and works. They contain an explicit repudiation of the belief that what are called the optical defects of the eye can ever be safely or satisfactorily treated apart from a knowledge of the diseases to which that organ is liable or of the manner in which it may participate in the diseases of the body as a whole. Such a declaration as this, proceeding from one who is not only the president of a special society but also the President of the Royal College of Surgeons of England, could hardly have been made in too emphatic terms. We doubt if Mr. TWEEDY'S words would have gained in force by amplification, while their direction is so clear that although uttered to a scientific audience their message could not have been better calculated to convey instruction to the public. Members of the medical profession, whether specialists or not, do not need to be told that the proceedings of a spectacle-quack are fraught with danger to his misguided customers, or that the various forms of apparatus, more or less complicated, which are displayed at places of public resort may prove traps for the unwary. But a warning is needed to reach the public ear and to make an impression on what is called the public mind. The fact is that the advances of ophthalmology and the knowledge recently gained concerning conditions which spectacles

may relieve have brought about the development of a new and dangerous form of charlatanism which is seeking, by all the usual means of impudent advertisement and unblushing false pretence, to bring grist to the mills of its professors at no matter what danger to the sight of the credulous or the ignorant. In the presence of such conditions it is hardly possible for the medical profession to speak too plainly, and we hope that Mr. TWEEDY'S words may filter through that profession and the press to the public so that the obvious lessons may be learned from them. The strong position occupied by the speaker as head and official mouthpiece alike of a powerful medical corporation and a famous scientific society should secure fruitful consideration for his words. They cannot be brushed aside as expressing any narrow or specialistic view.

The Personal Paragraph.

SEVERAL references have recently been made in the columns of a contemporary journal to the ethics of what may be conveniently termed the personal paragraph, so far as it relates to medical men and their patients. The correspondence commenced with the communication of a resolution, emanating from the ethical committee of the British Medical Association, which runs as follows: "That a circular letter be sent to the principal London newspapers deprecating the mention in paragraphs relating to the illnesses of persons, other than members of the Royal Family, of the names of medical men in attendance." The letter sent with this resolution states that it is believed that in general the information is supplied by the patient or his friends and that the medical man is not consulted as to the insertion of his name and if consulted would object. Other letters have since appeared protesting strongly against any organised interference with the liberty of the press and urging that a man of talent is entitled to have his meed of praise in the lay press when it is deserved and clearly claiming that there is financial advantage in such paragraphs and that many are debarred from sharing in this legitimate gain by the influence of a clique. "Sweet are the uses of" advertisement and the writers of these letters object "to let concealment, like a worm i' the bud," injure their prospects in life. They argue so strongly that they cast doubt upon the original charitable suggestion that the personal paragraph is "supplied by the patient or his friends."

Assuming the absence of connivance and unworthy prompting there may be reasons for these paragraphs being sent by the patient or his friends in all good faith. They might be suggested by the desire to claim sympathy in a time of sickness and to reassure friends, not only by stating the nature of the complaint, but also by indicating the name of the medical man in attendance or that of the physician or surgeon in consultation. It is conceivable that such a paragraph might be sent to the papers to avoid the trouble and annoyance of unnecessary suggestions from relatives and acquaintances. There is a strange tendency amongst the public to offer advice upon all matters, most of all, perhaps, upon questions of health; it is doubtless well-intentioned though often ignorant and disquieting. It is the tendency which leads to random recommendations of quack remedies, of fashionable health-resorts, and even of the names of members of the medical profession. At its best the personal paragraph may serve to check all sympathetic but ignorant suggestions, since by plainly stating the nature of the illness and the name of the practitioner it indicates, or may be intended to indicate, that though there may be cause for anxiety the patient and his relatives are aware of the risks and are doing their best to avert danger. In this sense, and perhaps in this only, is the personal paragraph legitimate and defensible. There is, however, another argument which might be urged on behalf of publication by the patient and his friends. Having presumably paid a high price for an operation by a distinguished surgeon, are they not at liberty to proclaim the fact and to derive some supposed social advantage from the association of their name with that of one known to have attended exalted personages? In other words, may not the advertisement occasionally be intended for the benefit of the patient rather than of the medical practitioner whose name has been introduced without his permission and regardless of his feelings?

To judge from some of the letters which have appeared upon this subject there is a strong feeling that the personal paragraph does not originate in either of these ways, that it may be sent by the medical man, and that it is not more frequently seen because of "an imposed incubus of chaste restraint" which "will not allow a man of talent to have his meed of praise in the lay press when it is deserved." "Chaste restraint" should hinder publication of the names of patients and the nature of their maladies, since there can be no public advantage in supplying material for unprofessional inquiries into the etiology of disease, whether it is to be attributed to personal habits or to inherited weakness. Guided by the dictates of good taste the consensus of professional opinion is against the disclosures of the lay press, since they tend to undermine confidence in the reticence of the medical attendant and when this is lost surely practice goes with it. Those who have written in defence of the personal paragraph appear to regard it as a royal road to fortune and think its suppression an act of injustice, but in its ordinary form it affords no measure of "praise when it is deserved," since it merely announces the name of one who has been consulted or who has been called upon to operate, and it does not record whether the advice has been acted upon or whether the operation was one involving greater difficulties or more deserving of praise than thousands of minor operations daily performed by juniors in ordinary hospital routine. While all sympathy must be extended to those—and they are numerous—who feel they have not yet reached the professional position to which they consider that they are entitled by their abilities, by their long period of preparatory study, and by their conscientious discharge of all professional duties, we would still in their own interests deprecate any endeavours by personal paragraphs to take a short cut towards success, since we believe that this frequently entails loss of confidence by patients who do not desire publicity and loss of respect amongst professional brethren who scorn those who do.

Physical Disability of Recruits for the Army.

ON the physical well-being of a people their national existence itself may depend. The mental activity of the inhabitants of a country is obviously of the utmost importance if they are to maintain an intellectual, scientific, or manufacturing supremacy over their rivals and nowadays the claims of higher education, especially in technical subjects, have been very extensively advanced, and though we do not wish for one moment to belittle their importance we consider that at present there is small chance of the needs of mental education being disregarded. There is, however, a risk that the physical education of certain sections of the community may not have due recognition. It was only natural that the long-continued neglect of technical education in this country should be followed by a reaction and the reaction has led to a certain amount of disregard of the importance of physical health and thus physical education is at the present time distinctly under-valued. The hackneyed phrase "*mens sana in corpore sano*" exactly expresses the desired consummation. "These ought ye to have done and not to leave the other undone." To neglect either the mental or the physical training of the child or of the nation is a serious error; the two should proceed *pari passu*. Especially in the *personnel* of the army and navy is physical strength of importance, for vain indeed would be an appeal to physical force if the physical force itself should prove wanting.

A doubt has arisen, and to this subject we have frequently referred, as to the quality of the raw material which offers itself to the recruiting sergeant, for it has been suggested that there is an obvious falling off in this respect and it has been thought that the deterioration has been proved by statistics. It is, at all events, certain that during recent years a large number of recruits for the army have been rejected on the ground of physical disability and it was proposed that the Government should institute an inquiry as to the causes which have led to this apparent falling off in the national health. To this end, as we mentioned in THE LANCET of July 25th, p. 246, the Director-General of the Army Medical Service prepared a circular containing statistics bearing on the subject and this circular was sent by the Secretary of State for Home Affairs a short time ago to the Council of the Royal College of Surgeons of England with a request for any observations on it which the Council might feel disposed to make. The Council has now made public its reply, which was hitherto confidential, and it deals with the question of the necessity for an inquiry into the causes of physical deterioration and into the means available for improving the national health. The Council bears testimony to the skill and clearness with which the Director-General has drawn up his report on a very difficult and intricate subject. The circular states *in limine* that there is reason to believe that the physique of the well-to-do classes of the country is improving and we do not think that there will be any difference of opinion on this point for it is a matter of common knowledge. The increased attention devoted to the physical exercise of girls also cannot but have its effect on the next generation. The circular goes on to say that "a very large proportion of the men who offer themselves for enlistment in the army are found to be physically unfit for military service," and it appears to be suggested that the proportion of those who are unfit is increasing. The Council does not consider that the statistics which are contained in the circular really bear out these views. It is necessary in the first place to be sure that there has been no change in the requirements as to the physical fitness of recruits for the army during the few years to which the statistics refer, for any such change would obviously deprive the statistics of their value, but no alteration appears to have been made, nor has there been any increased stringency in the application of the tests imposed. The men who now wish to enter the ranks of the army are drawn from a class physically inferior to that from which they came in former years and it is to this cause that the Council mainly ascribes any deterioration that there may be in the quality of the recruit. Putting aside the comparatively few who take up soldiering from a real liking for a military life, most of the recruits are men who have been unable to obtain other work. The Council points out that during recent years many influences have combined to affect the status of the working classes. Increased competition in trade, the "labour movement," trade unions, and many other social and economic factors have modified the conditions of labour and have raised the standard of efficiency of the workman, the standard of living, and the rate of wages. This competition leads to the better educated and the more physically fit obtaining higher wages now than formerly; hence it follows that there is a greater difference now between the pay offered to the private soldier and the wages which can be earned by the working man. It is only from the residue, who from some mental or physical unfitness fail to obtain regular employment, that the men who offer themselves for enlistment are drawn.

In spite of the probability of there being some falling off in the quality of the recruit the Council was unable to find that the physical disabilities have increased. One table in the circular gives the proportion of rejections of boys under 17 years of age; only 11·2 per cent. were rejected and it cannot be said that this is a large proportion when we bear in mind the numerous possible physical disqualifications. Rejections are distinguished as primary and secondary. Primary rejections are those which occur at the first examination for enlistment and secondary rejections are those occurring within three months of enlistment or after two years' service. There has been a steady fall in the rate of primary rejections from 40·6 per cent. in 1893 and 41·6 per cent. in 1896 to 27·4, 28·0, and 30·7 per cent. respectively in the three years 1900 to 1902, but in 1901 and 1902 there was a sharp rise in the percentage of secondary rejections, though it is difficult to say what is the explanation of this rise. The table giving the causes to which the rejections are assigned shows a diminishing proportion for every cause except "loss or decay of teeth." The numbers rejected for "chest measurement" and for "imperfect constitution and debility" have greatly diminished, while the rejections due to the teeth have increased nearly five-fold in the 12 years 1891 to 1902. Assuming that no change has been made in the requirements the Council believes that many of

the causes of disability will grow less and that "the spreading influence of the various social, municipal, and philanthropic agencies for the promotion of the public health and the strengthening of the character of the individual cannot fail to affect beneficially the health and wellbeing of all classes of the people," and with this hope we concur. It must not be forgotten that many of the disqualifications which exclude a would-be recruit from the British army are considered of much less importance in countries where conscription obtains. In conclusion, the Council states that it does not consider that there is any need for a large inquiry into the national health but it is of opinion that "much might be done by emphasising the necessity of still stricter attention to the health, feeding, and training of school children, and more especially the care of the teeth and the arrest of threatened or early decay." The Council also considers that "as much as possible should be done to promote the health, growth, and general physical development of the young soldier by improving his environment and by the exercise of special care in the selection of the kind and quality of his food and in its preparation and preservation."

As we have already announced, the Government has appointed a very satisfactory committee to investigate the whole subject. We shall probably have to wait several months for its report, as such investigations are carried on somewhat slowly, but when it is issued it should prove of the greatest interest to the whole nation.

Annotations.

"Ne quid nimis."

KING EDWARD VII. SANATORIUM.

ON Nov. 3rd the foundation-stone of this sanatorium was laid by His Majesty the King at Lord's Common, Midhurst, before a large gathering of visitors, the majority of whom consisted of members of the medical profession and their wives or daughters. The King in his speech referred to the benefits likely to be conferred on the community by a sanatorium of the character which it was proposed to build. It is intended not for the accommodation of the very poor—they are already provided for—but for the relief of those of slender means who are unable to meet the expenses of prolonged residence in private sanatoriums. The original plan of reserving a certain number of beds for more wealthy patients will also be persisted in. His Majesty also laid stress on the fact that while no necessary comforts which will add to the well-being of the patients will be omitted there will be a total absence of all luxury and of expenditure of money in superfluous appointments. This arrangement is entirely what might be expected, emanating as it does from a committee formed of gentlemen who have had both large and special experience in the management of hospitals and kindred institutions. Sir William Broadbent, as chairman of the advisory committee, in a brief address referred to the care which had been taken in selecting a suitable site and the difficulties which had been met with in obtaining a good water-supply. Both these essentials are now all that can be desired. The general arrangements for the day were most efficiently carried out. The invited guests were conveyed to Midhurst and Haslemere stations respectively by special trains and vehicles were in readiness to take them to the site of the sanatorium. After the brief ceremony of laying the foundation-stone the King at once returned to London, whilst luncheon was served to the large party that had been invited, and subsequently ample time was allowed to view the preparations which have already been made for the construction of the building. The architect's plans were also on view. In addition to the interest of the occasion a most enjoyable day was spent by those who had the privilege of being present, the drive to Lord's Common giving an opportunity of viewing the beautiful scenery, rendered even more lovely than usual by the glorious autumnal tints.

THE ST. BARTHOLOMEW'S HOSPITAL APPEAL.

IN THE LANCET of Oct. 31st, p. 1247, we alluded shortly to Sir Henry Burdett's paper in the *Hospital* of the same date concerning the future of St. Bartholomew's Hospital and in one place we unwittingly committed a slight inaccuracy. We stated that Sir Henry Burdett did not say whither he would propose to remove the nursing home, but we see on closer inspection of his article that he mentions that the existing wards, when the patients would be removed into the new wards which he proposes to construct, would suffice for the nurses. The question of the future of St. Bartholomew's Hospital is so important that we think it is as well to state succinctly how matters exactly stand. For some years past it has been obvious to the authorities of the hospital that more land must be acquired for the purpose of reconstruction and augmentation of the existing buildings and on Feb. 25th, 1902, Lord Balfour of Burleigh, who was the appointed arbitrator in the dispute between the authorities of St. Bartholomew's Hospital and Christ's Hospital, gave it as his decision that St. Bartholomew's Hospital should be given an area of a little more than one and one-third of an acre at a cost of £238,781.[1] The area thus granted is very nearly the same as that marked in a map which we published in our issue of August 11th, 1900, p. 408. What is now required is, as we said last week, some two more acres of land. This would cost about another £250,000. To erect the necessary buildings upon this area and the area at present in the possession of the hospital, including the removal of some of the existing buildings, would cost, in all probability, another £500,000. The Mansion House Committee has already decided to appeal for £350,000, but it seems to us that in view of the great importance of the matter it would be as well for the governors of the hospital to take a bold step forward and to appeal to the public not merely for £600,000, as suggested by Sir Henry Burdett, but for £800,000. This it may be calculated would cover with a certain margin to spare the cost of the additional two acres which we suggest are necessary for the due extension of the hospital and the erection of new buildings together with the renovation of the old. We think that, if the public were certain that the authorities of St. Bartholomew's Hospital were willing to undertake a great scheme which would be practically final, the £800,000 might not be long in forthcoming. It is an enormous sum, and when the wants of other hospitals and the urgency of other appeals are remembered we may seem over sanguine as to the result of a public appeal for such a mass of money. But St. Bartholomew's Hospital has behind it a history of upwards of eight centuries. It is the only hospital within the boundaries of the City of London. It has stood where it now stands since the day when the first stone of it was laid. Medical men and others who have been connected with it are scattered throughout the empire and we believe that an appeal to the generosity of the citizens of London, to the subjects of

[1] THE LANCET, March 1st, 1902, p. 611.

the King whose son is now, like his father before him, the President of the hospital, would meet with a response worthy of the name and fame of that great institution founded so many years ago by Rahere.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual meeting of Fellows and Members will be held at the College on Thursday, Nov. 19th, at 3 P.M. Any motion to be brought forward at the meeting must be signed by the mover or by the mover and other Fellows and Members, and must be received by the secretary at the College not later than Nov. 9th. At this meeting the annual report of the work of the Council will be presented. A copy of this report will be sent to any Fellow or Member on application, and on request the name of the Fellow or Member can be registered, so that the report can be sent to him annually without further application. It is important that as many Fellows and Members as possible should attend this meeting, so that any motions which may be carried may really represent the opinions of the body corporate.

THE "RED LIGHT" TREATMENT OF SMALL-POX.

DR. J. F. SCHAMBERG, professor of diseases of the skin in the Philadelphia Polyclinic and College for Graduates in Medicine, has submitted to us a criticism of Professor Finsen's views on the red light treatment of small-pox which are well known to the readers of THE LANCET. Dr. Schamberg's remarks refer perhaps more particularly to an article which appeared in the *British Medical Journal* of June 6th, 1903, by Professor Finsen but they are of considerable interest as showing the very varied opinions which have been expressed on this method of treatment. The failure to take into consideration the type of cases in any particular epidemic of infectious disease has frequently led to misconception in regard to the value of a new remedy. Doubtless the fact that epidemics of small-pox vary greatly in the case mortality may account in some measure for the different results obtained by the Scandinavian physicians on the one hand and the American physicians on the other, and Dr. Schamberg refers to this point in his remarks. Professor Finsen was enthusiastic with regard to his results and remarked that "the effect of the red light treatment is one of the most striking results known in medicine" and that "we cannot help comparing the red light treatment with vaccination." Dr. Schamberg attempts to refute these statements both on theoretical and practical grounds. Professor Finsen maintains that the chemical rays of sunlight exert an injurious influence on a diseased skin and that the use of red panes of glass or red curtains in a room excludes the chemical rays and he adduces this theory as an explanation of the alleged benefit of red light in cases of small-pox. Dr Schamberg contests this view and his arguments seem to be well founded. He points out that while prolonged exposure to the direct solar rays, particularly in the hot months of the year, commonly induces inflammatory reaction, yet there is no evidence of such noxious influence from ordinary exposure to diffuse daylight. Further, small-pox being more prevalent in the winter months, it seems difficult to believe that ordinary exposure in the sick room to diffuse daylight at that time of the year would result in any irritative action of the skin. Dr. Schamberg also is of opinion that the predilection of the small pox eruption for the face and the extremities is not because these parts are exposed to light but that it is due to their greater vascularity. Dr. Schamberg refers to the favourable opinion of the treatment expressed by physicians chiefly in Denmark, Sweden, and Norway. His own experience is limited to two cases of the disease, both of which ran an unfavourable course. He refers, however, to an article by Dr. N. D. Brayton of Indianapolis. This physician treated 300 cases in "red light wards" and was entirely unable to corroborate the good results claimed by the Scandinavian medical men. As partially explanatory of this discrepancy Dr. Schamberg points out that Denmark, Sweden, and Norway are among the best vaccinated countries of Europe. It is obviously illogical and misleading to attribute definitely favourable results to certain measures employed in the treatment of small-pox in persons once vaccinated. It is evident, therefore, that no absolute conclusions can yet be drawn with regard to the red light treatment. Further evidence is necessary. He insists that the general severity of the particular epidemic must be noted and also whether the patients so treated had ever been vaccinated, or whether revaccination had been performed at a comparatively recent period.

STREET NOISES.

WE have upon several occasions drawn attention to the very great and absolutely unnecessary nuisance caused by newsvendors shouting their wares in the streets. We have also pointed out that the view which some magistrates take that a complainant must appear in person renders the existing law on the subject absolutely useless. We are glad to see, however, that one magistrate at least has apparently considered that the recently passed by-law of the London County Council is enough for him and the police to act upon without the attendance of an annoyed ratepayer. On Oct. 28th seven newspaper boys appeared before him for shouting in the streets. Six of them were fined 2*s.* 6*d.* and 2*s.* costs each, and one, who was very small, had to pay 1*s.* and 2*s.* costs. The nuisance in a street such as the Strand which is full of workers is absolutely unbearable and, as we have pointed out again and again, there are lots of newspaper sellers who do not shout and who do not rush through the streets like lunatics. The police are exceedingly loth to act upon their own initiative but it is perfectly foolish for legal authorities to expect anybody who is at work to leave his occupation, to run downstairs, to find a policeman, to follow up the newspaper seller, to take his name and address, and to promise to appear at some future date at a police-court. What is wanted is that any newspaper seller who persistently shouts should be then and there taken to a police-station.

WORKHOUSE NURSING.

THE matter of nursing in workhouses has already been dealt with at some length in these columns but its importance justifies some allusion to the proceedings at a meeting held on Oct. 29th in connexion with the Hospitals Association. This meeting, which took place at St. Thomas's Hospital, Mr. Thomas Bryant being in the chair, was held for the purpose of considering the Report on Nursing of the Departmental Committee which was appointed by the President of the Local Government Board. In opening the discussion Dr. T. D. Savill found fault with the constitution of the committee in that while the Local Government Board was fully represented no outside expert on nursing was invited to assist. He opposed the arrangement by which it is proposed to grant certificates to nurses after 12 months' training on the grounds (1) that the material afforded by cases in workhouses is not sufficient for adequate training, especially as the medical and surgical methods pursued there are not always up to date; and (2) that the time is too short both for gaining experience and for the formation of that character of broad-minded intelligent sympathy which constitutes so important a part of a nurse's qualification. It was pointed out that the object of the Local Government Board was to manufacture cheap nurses for employment in workhouses, and stress was laid on the injustice

which would be done to nurses of the better class by giving credentials of apparently equal value to imperfectly trained women. Miss Gibson, matron of the Birmingham Infirmary, regarded the suggestion that a new grade of nurses, to be called "qualified nurses" and with only one year's experience, should be instituted as dangerous and retrograde in the extreme. She agreed with Dr. Savill as to the impossibility of any woman obtaining in a year at a small workhouse such knowledge as would render her a safe person to be left in charge of patients without supervision. Skilled nursing, she remarked, is a necessity for all who are sick and she expressed the opinion that it was a gross injustice to the sick poor that so low a standard of knowledge as the report sanctions should be accepted. Dealing with the question of the position of superintendent nurses she supported the proposal of the committee to make those officers independent of the matrons and pointed out that any course which tended to reduce the responsibility and the enthusiasm of the Poor-law nurse tended to lessen the supply and to lower the quality of such nurses. Reform, in Miss Gibson's view, should take the direction of (1) the formation of a special nursing department of the Local Government Board; and (2) the appointment of women inspectors who were nursing experts to visit, to inspect, and to report on the nursing of the small unions. In this way she thought that the debt of gratitude which she described the sick poor as willing to pay would be largely added to. Several other speakers, including Mr. J. T. Macnamara, Mrs. Despard, and Mrs. Bedford Fenwick, followed in the same sense and a motion proposed by Dr. Savill was passed unanimously condemning the proposals of the Local Government Board and urging that their adoption would have a detrimental effect upon nursing generally. It was also decided to ask the Local Government Board to receive a deputation in connexion with the subject. With the aims of the promoters of the meeting, in so far as these are directed towards maintaining the efficiency of nursing in all its branches, we are quite in sympathy. It is eminently desirable that there should be no ambiguity about the qualifications of nurses and this will certainly arise if the Local Government Board persists in applying the epithet "qualified" to a nurse as an indication of her having received a minimum of training.

SECOND ANNUAL REPORT OF THE WORK OF THE BACTERIOLOGICAL LABORATORY OF THE WEST RIDING OF YORKSHIRE COUNTY COUNCIL.

THE number of county medical officers and of county public health laboratories will no doubt steadily increase as the public realise the value of the services which are rendered by them in the preservation of the country from the spread of epidemic disease. Such annual reports as the one under notice will greatly assist this realisation. The West Riding County Council having established a laboratory offered to undertake free of charge such bacteriological investigations as would be of assistance in the diagnosis of certain infectious diseases and of importance to public health. The need of a county laboratory has in other cases been met by the utilisation of the fully equipped establishments which were attached either to the provincial universities or other educational bodies and thus the services of skilled investigators have been secured at a comparatively small expense. There can be no two opinions as to the legitimacy of the expenditure of public money for the public health but care should be taken that the resources of the public laboratory are not employed for purposes which are but remotely connected with the public service. The West Riding Laboratory commenced work in April, 1901, and a steadily increasing number of cases has been dealt with. In the last nine months of 1901 some 863 specimens were reported upon as contrasted with 1700 during an equal period in 1902. The principal work has consisted in the examination of specimens for the bacillus tuberculosis and the bacillus diphtheriæ and for the agglutination reaction in enteric fever. In the case of diphtheria the use of Neisser's stain and the direct examination of the swab have been so successful that in 50 per cent. of the positive cases it has been possible to send a report within a few hours of the receipt of the specimen. Early diagnosis in diphtheria is of the greatest importance to both patient and practitioner and the laboratory is to be congratulated on this unusually high ratio of successful and rapid diagnosis. One of the most important and striking features of the report is the very complete clinical information of the cases submitted for examination which the director, Dr. P. J. Cammidge, has been able to obtain. This bears witness to the good feeling which exists between the central laboratory and the local medical officers of health and the general practitioners, without which it is impossible to carry on any successful work. It is of vital importance that the results of the laboratory should be correlated with the clinical details if these institutions are to produce really scientific work and to further the progress of preventive medicine.

TABES DORSALIS IN THE NEGRO.

Two grave and incurable diseases of modern life are believed by some neurologists to have been acquired by the negro with civilisation—viz., general paralysis of the insane and tabes dorsalis. Of tabes in the negro, writes Dr. d'Orsay Hecht, instructor in neurology in the University Medical School, Chicago, in an article published in the *American Journal of the Medical Sciences* for October, it has been possible to obtain very few references in medical literature. Von Leyden quotes an apparently well established belief among medical men to the effect that "tabes occurs very rarely in the large number of syphilitic negroes" in the United States and in Africa, while the disease is also stated by local physicians to be rare in Cuba. Dr. Potts, physician to the Dispensary for Nervous Disease in the University of Pennsylvania, had not seen a single case of tabes dorsalis in the negro in eight years, and Dr. Burr had not seen a single case at the Philadelphia Infirmary for Nervous Diseases during 14 years. Dr. Hecht, having had the opportunity of seeing and studying "four undoubted cases of tabes dorsalis in coloured individuals," three of whom were females and one was a male, states that the clinical picture of the disease as exhibited in these cases in no way differed from the symptom-complex accustomed to be seen among the whites except, perhaps, in the fact that they were all of the "amaurotic type" of the disease. Dr. A. Plehn, who had studied the diseases of the negro in Western Africa and who had drawn up an official report on the subject to the German Government in 1895, states that of nervous disease he had only seen four cases of epilepsy and an occasional case of hysteria, which exhausts the list of neuroses to which the natives are liable. Dr. Hecht thinks that emancipation from slavery has brought to the negro all the vices and excesses of western civilisation, that tuberculosis, syphilis, and cancer are now deeply rooted affections among them, and that a slight admixture with the blood of white people has weakened the race. The inter-crossing with new blood has brought with it a tendency to acquire new diseases. "By an illegitimate and universal miscegenation with the whites the typical American negro of to-day has incorporated in his frame the deteriorating phenomena of his hybridity." The following is one of the four cases recorded by Dr. Hecht. The patient was a negro woman, aged 39 years, of healthy parentage, in whom there was a slight trace of "white" blood. As a

child she suffered at the age of 12 years from rheumatism which became chronic owing to hard work and exposure. At the age of 16 years she gave birth to an illegitimate child. Prior to the birth of her second child at the age of 18 years she contracted syphilis from the man who was her husband. Her present illness began at the age of 34 years with severe recurrent protracted headaches of an agonising character and progressive dimness of vision in the left eye which glasses did not seem to relieve. Eventually she became quite blind in the left eye and dim of vision in the right eye. Severe gastric "crises," "girdle sensations" about the waist, paræsthesiæ about the feet and ankles, "lightning" pains in the legs, and a commencing ataxia of gait manifested themselves. The sexual desire rapidly disappeared and some defect of control of the bladder and rectum developed. Physical examination showed absence of knee jerks, optic atrophy with iridoplegia, and exaggeration of the plantar reflexes. The slight ataxia soon disappeared. The interval between syphilitic infection and the first manifestation of tabes was in this case, and in three other cases, in harmony with what has been observed in white races. Optic atrophy was present in every one of the four cases and it was singular to note, states Dr. Hecht, that as the optic atrophy became distinct the further advance of the ataxia was checked—a condition to which Benedikt of Vienna called attention 16 years ago. Subsequent observations by Bonar of New York and Pierre Marie have emphasised the fact that almost invariably the onset of optic atrophy marks the arrest of the *ataxic* symptoms, a fact for which an explanation is now found, says Dr. Hecht, in an ingenious theory of "compensation of nerve centres and tracts" recently propounded by Edinger. The question as to why the negroes, amongst whom syphilis is a very common disease, should suffer very rarely from tabes is hard to answer as yet. "As well might we seek to explain the absence of tabes in Bosnia and Herzegovina where, as we know, the most intense constitutional syphilis is rampant among the natives." Dr. Hecht concludes that a constitutional variation has been wrought in the American negro by acclimatisation, by social environment, and more than all else by miscegenation, and from a critical and exhaustive study of the facts of his own and other cases he concludes that the last factor is, above all, essential to the production of tabes in a syphilised negro.

RAILWAY TRANSPORT FOR SICK AND WOUNDED MEN IN TIME OF WAR.

IN the June issue of *Le Caducée* Surgeon-Major Duval of the French army discusses the question of railway transport for the sick and wounded in war time. While on a tour through British India in 1897–98 he was greatly impressed by the completeness of the arrangements to that end which he found established throughout the entire railway system of the North-Western Provinces. Forming part of every train there were several third-class carriages which answered admirably for ordinary traffic and could also be easily rearranged for the reception of sick or wounded soldiers in the recumbent position. The seats and backs being moveable could be compactly stored in an adjoining van, leaving a framework suitably fitted with hooks and other appliances for the suspension of stretchers in two tiers. The operation of converting one of these carriages into an ambulance took a few minutes only. In the sides of each carriage there were folding doors wide enough to admit laden stretchers with ease and safety. In ordinary circumstances a portion only of each door would remain available for the ingress and egress of passengers, the remainder being kept securely fastened in order to prevent accidents. On his return to France Surgeon-Major Duval instituted inquiries and found that with the exception of one or two specially equipped "sanitary trains" capable of accommodating a comparatively insignificant number of patients the army medical authorities would in the event of war be compelled to depend for the transport by rail of sick and wounded soldiers upon the ordinary baggage wagon, a species of vehicle which is rendered absolutely unfit for the purpose by its lack of suitable springs. So long ago as 1882 Dr. Redard, principal medical officer of the State railways in France, drew attention to this subject in a report which he addressed to the head of the administration but apparently no action was taken in the matter. Last year he again returned to the charge. According to an annotation in the *Archives de Médecine et de Pharmacie Militaires* for August one of the French railway companies has already constructed 56 third-class carriages with removeable fittings and containing wide doorways for the admission of litters and we are also told that Dr. Redard has been authorised to inspect the existing rolling stock throughout France with a view to the conversion of suitable carriages for ambulance purposes.

"ANTI-VIVISECTIONIST" METHODS IN THE TEMPLE.

NOW that the Bar has resumed its labours after the long vacation the attention of the benchers of the Temple may be called to a large placard which decorates a ground-floor window looking into Elm-court, Temple. It is apparently placed there by someone interested in what is popularly called "anti-vivisection" and consists of a picture of a gentleman in his shirt-sleeves contemplating a small dog which sits "begging" before him upon a table. Beside the dog stands a microscope and a box with articles intended to suggest surgical instruments, and under the whole is inscribed "The Last Appeal," with a reference to the "anti-vivisection" source from which this entirely absurd advertisement is taken. The suggestion of the picture, of course, is that the gentleman in his shirt-sleeves is being appealed to for mercy by the small dog which he is about to sacrifice with ruthless cruelty in the supposed interests of science. The display is in very bad taste and if the windows of chambers in the Inns of Court are to be used for purposes of this kind it would be better that the posters exhibited should deal with matters more within the scope of the lawyer's calling and not be of a nature offensive to members of another learned profession.

TUBERCULOSIS OF THE URETHRA.

TUBERCULOSIS of the urethra is very rare. The following case, which is recorded by Dr. A. L. Chute in the *Boston Medical and Surgical Journal* of Oct. 1st, is of great interest. A married man, aged 35 years, who had never suffered from venereal disease was seen in March, 1902. Two years previously he began to suffer from painful and frequent micturition and the left inguinal glands rapidly enlarged. Hæmaturia and slight urethral discharge occurred at times. For a period there were painful erections and coitus was impossible. The stream of urine gradually became smaller and micturition became more frequent. When he came under observation he was micturating four times at night and frequently in the day. His general condition was good and there was no urethral discharge. With difficulty he passed a few ounces of urine in a very small stream which was followed by dripping. The urine was pale, of specific gravity 1009, and contained a trace of albumin and a few shreds which on staining showed urethral and pus cells, cocci and bacilli, but no gonococci. The urethra felt like a stiff tube. At a distance of one and a half inches from the meatus was a hard bulbous enlargement and there was another at the peno-scrotal angle. On moving the urethra laterally at this point distinct crepitus was obtained. A

probe was passed as far as the bulb and gave a grating sensation as it passed the enlargements. In the left groin was a mass of hard glands three or four inches long and about an inch wide. In the right groin the glands were only slightly enlarged. The prostate was enlarged and on the right side a small hard mass was felt. The diagnosis was not clear. Gradual dilatation of the urethra relieved the frequency and difficulty of micturition. At first bleeding was produced but it gradually diminished. With an alligator forceps bits of calcified material were removed. They were composed of carbonate and phosphate of lime, with traces of magnesium compounds and triple phosphate. A search for tubercle bacilli proved negative. In July, 1902, the left inguinal glands were removed. They showed amyloid infiltration, a condition which, apart from general amyloid disease, is very rare and usually is due to tuberculosis in some part of the lymphatic area. In April, 1903, a No. 25 (French measurement) sound could be passed. Grating could be felt at a point one and a half inches from the meatus and in the membranous urethra. On several occasions small pieces of calcified material were passed. Endoscopy showed a pale, fibrous-looking canal with an occasional eroded spot and whitish points here and there. Though the bacillus was not found the diagnosis of tuberculosis seemed justified by the non-venereal origin of the disease, its course, and the condition of the inguinal glands. Dr. Chute has been unable to find recorded any case in which similar calcareous deposits were produced. The nearest approach is the case of a child, reported by Berard and Trillat, in which there was urethral tuberculosis and several points were felt which seemed to be due to calcification. Urethral tuberculosis occurs in early childhood and in old age but like all forms of genito-urinary tuberculosis it is most common during the period of sexual activity. Men are affected more frequently than women. Gonorrhœa seems to be a predisposing cause. Several cases of tuberculosis of the glans penis with extension to the urethra have been reported. In cases in which a necropsy has been performed there have been almost without exception other lesions of the genital or urinary tract which appeared to have preceded the urethral lesion. Thus urethral tuberculosis may be secondary to genital or to urinary tuberculosis; usually both tracts are affected. Lesions of the prostate, epididymis, and vesiculæ seminales are nearly always associated. In urethral tuberculosis there are generally two forms of lesion—granulations and ulcers. The former may be grey or yellow. Dr. Chute's case appears to be unique in the fact that the acute stage of the disease ran a favourable course with calcification.

HETEROGENESIS.

THE problem of the origin of life must ever exercise its fascination on the human mind. Since Virgil described the growth of bees from the carcase of a beaten ox to the time when the development of the experimental method led to the researches of Needham and Spallanzani the heterogenetic origin of life has been at intervals the subject of more or less heated controversy. To many the problem would seem to have been solved and most will have forgotten the war which in "the sixties" raged round this and the kindred problem of biogenesis when such champions as Pasteur and Tyndall were ranged against Pouchet and Bastian. Death has removed most of those who then fought but one remains and still upholds the heterogenetic theory. In the *Annals and Magazine of Natural History* Dr. H. Charlton Bastian writes of the origin of bacteria and their allies by heterogenesis and in THE LANCET of Oct. 31st, p. 1220 there is a paper by him on the importance which the proof of this *de novo* origin of micro-organisms has in widening the views on contagion which are current in medical science. In the first mentioned paper, as he says, he has shown that the segments of a rotifer's egg may "presently become alive as amœbæ, monads, persanemata, or even as ciliated infusoria," it would seem comparatively easy to grant that bacteria should have a heterogenetic origin, though owing to their small size the proof may be more difficult. The methods Dr. Bastian employs are reasonings by analogy and experimental investigations on animal and vegetable tissues treated with formalin and kept in vessels washed out with that fluid. Reproductions of photographs of the results of his microscopical examinations are given but though the original sections may carry conviction this is hardly the case with the reproductions. It is, however, well to remember that discussions of this subject have been far from sterile, as in the course of the investigations science and especially bacteriology have been enriched by a large number of practical methods. The second paper deals with the very interesting subject of the origin *de novo* of disease and cites the cases of enteric fever, tubercle, and leprosy as affording evidence of such origin, while the experimental septicæmias produced by the injection of putrid blood or some sterile chemical irritant in the rabbit are held to afford absolute proof that they may originate in this way. When we consider that a pathogenic germ may be so modified that it loses its pathogenicity and becomes indistinguishable from a saprophyte and yet that this same organism may under certain experimental conditions resume its virulence, especially when it is passed through the bodies of extremely susceptible or artificially weakened animals, it is a very tempting hypothesis to suppose that such a disease as typhus fever, which practically never appears except under conditions of starvation or extremely bad sanitation, may be produced by some organism which we usually regard as a saprophyte. In many branches of science, notably in chemistry, it has been by the study of outlying phenomena which did not fall easily within the scope of the current theory that the science has made its next step in advance, and a thoughtful review of some of the outlying phenomena of medicine such as are dealt with by Dr. Bastian cannot fail to be of value. It is of interest, too, to be reminded that the problems of heterogenesis do not in all minds find the same solution and also of the great difficulty, if not impossibility, of finding an absolutely final proof of the biogenetic origin of life.

FISTULA BETWEEN THE PORTAL VEIN AND THE HEPATIC DUCT.

IN the *Australasian Medical Gazette* for September Mr. E. W. Moncrieff, pathologist of Prince Alfred Hospital, Sydney, has reported a remarkable case under the care of Mr. H. V. C. Hinder of fistula between the portal vein and the hepatic duct. An operation for gall-stones was performed on a man and a large calculus was found in the common bile duct. The latter was incised longitudinally. As soon as the calculus was removed there was a gush of blood as if a large vein had been opened. The hæmorrhage was controlled by four forceps which grasped the edges of the incision and finally by means of a large tube stuffed with gauze. A few hours later the movements of the patient displaced the plug and death occurred from hæmorrhage into the peritoneal cavity. At the necropsy the common duct was found to be greatly dilated. It was of about the size of a thumb, its mucous membrane was roughened, and its walls were thickened. The portal vein was quite normal. The gall-bladder was small, shrunken, and thickened, and contained a little mucoid blood-stained fluid. The hepatic ducts were full of dark, clotted blood. At the transverse fissure of the liver the portal vein showed a discoloured patch under the intima about a centimetre in diameter. In this was a small opening with clean cut edges like the mouth of a vein. On introducing a probe the intima was found to be dissected up and

the discolouration to be due to effused blood. The probe could be passed on into one of the large hepatic ducts just at its origin from the common duct. Evidently blood had passed directly from the vein into the ducts and escaped when the stone which acted as a plug was removed. On section of the liver all the small bile ducts were found to be full of clots. Microscopic examination of the liver showed an increase of small round cells in the ramifications of Glisson's capsule. The cause of the communication between the portal vein and hepatic duct was not obvious. Perhaps the calculus at one time lay over the opening in the hepatic duct and by pressure gave rise to necrosis. The appearance of the blood contained in the ducts was compatible only with recent hæmorrhage, for the clots were soft and dark.

EXPERIMENTAL PSYCHOLOGY AT KING'S COLLEGE, LONDON

THE council of King's College, London, has just elected Dr. C. S. Myers to the lectureship on experimental psychology at the College which was rendered vacant by the resignation of Dr. W. G. Smith who has obtained a similar post at the University of Liverpool. The recently established laboratory devoted to this important branch of science is now in full working order and those who desire to take advantage of it can obtain full particulars by writing to Dr. Myers or to Dr. W. D. Halliburton at King's College.

RECENT ADVANCES IN THE KNOWLEDGE OF GENERAL PARALYSIS.

IN the *Archives de Neurologie* for September a number of communications are published which contain accounts of recent researches made in the pathological histology of general paralysis of the insane by various observers. In the first of these articles Dr. Klippel of Paris gives a lengthy account of his investigations. As the result of his studies he considers that three types of general paralysis, regarded from the pathological standpoint, may be said to exist. The first type is characterised by inflammatory lesions (which may proceed to actual suppuration) of the cerebral meninges and cortex (inflammatory general paralysis). In the second type a lesser degree of meningo-encephalitis is seen, but this is a secondary condition superimposed on a pre existing cerebral degeneration which might have been brought about by other causes to which reference will be made below (associated general paralysis). The third type comprises purely degenerative lesions arising from various causes but unaccompanied by any traces of inflammatory action (degenerative general paralysis). In spite of the attempts of various investigators, says Dr Klippel, no distinctive histological feature has been found in inflammatory general paralysis which enables us to differentiate it from other inflammations of the brain due to micro-organisms or their toxins, and even the presence of "mast cells" is not pathognomonic of general paralysis. On the other hand, such morbid conditions as cortical hyperæmia with diapedesis of leucocytes, hyaline degeneration of the fine cortical blood-vessels, invasion of the pericellular spaces by leucocytes, and miliary hæmorrhages into the substance of the brain have been described by many observers (Manasse, Klebs, Pierret, and Bischoff) as occurring in the brain as the result of such diseases as chorea, influenza of the "nervous" form, and acute delirium. In inflammatory general paralysis there are present such indications of bacterial infection as cystitis and marked leucocytosis. The second type of general paralysis is marked by slight or moderate meningo-encephalitis, due probably to bacterial infection, but supervening on a basis of pre-existing cerebral organic degeneration. Such degeneration has usually been found to be caused by alcoholic indulgence over long periods of time. Patients of this class present signs of fatty and fibroid degeneration in the liver, myocardium, and kidneys. Tuberculosis of chronic and long-standing character produces in some cases a form of special cerebral degeneration on which, as on a basis, the acute infection of general paralysis may develop with facility Similarly brains weakened and altered by the presence and growth of tuberculous tumours or cerebral gummata are prone to suffer from, and succumb readily to, the agencies which produce general paralysis. The third group comprises cases of general paralysis of purely degenerative character, in which the basis is a cerebral debility of congenital origin or one due to tuberculosis or alcoholism of a mild degree of intensity. These cases lapse steadily and uneventfully into dementia with the onset of general paralysis without exhibiting signs of inflammatory or other acute brain mischief. They include the group of cases of the so-called "primarily demented type." Between these three types of cases a few intermediate forms are occasionally met with, so that it is impossible to draw strict lines of demarcation between them. At the acute and rapidly progressive stages of general paralysis, adds Dr. Klippel, acute leucocytosis is observed, the number of polynuclear leucocytes in the blood being high, but during remissions these leucocytes diminish to a normal proportion. Dr. Anglade of Toulouse, in a contribution following the above, stated that lesions of the neuroglia elements in the brain and of the capillaries occurred in the earliest stages of general paralysis. He regarded these changes in the neuroglia and capillaries as primary, and the degeneration of the nerve cell as secondary, phenomena. Lymphocytosis occurred early in the cerebro-spinal fluid—a fact indicating morbid changes in the meninges and blood-vessels. Dr. Laignet Levastine of Paris in another article stated that from a study of 42 brains he had come to the conclusion that the lesions of general paralysis could be classed under the three groups mentioned by Dr. Klippel.

THE ENNO SANDER PRIZE.

THE Association of Military Surgeons of the United States has announced the conditions to be observed by the authors of essays competing for the Enno Sander Prize and it directs special attention to the fact that military and naval medical officers of the British services are eligible. The subject of the competition for 1904 is "The Relation of the Medical Department to the Health of Armies." The conditions of the competition are as follows:—

1. Competition is open to all persons eligible to active or associate membership in the Association of Military Surgeons of the United States.
2. The prize will be awarded upon the recommendation of a board of award selected by the executive committee. The board will determine upon the essay to which the prize shall be awarded and will also recommend such of the other papers submitted as it may see fit for honourable mention, the author of the first of which shall receive a life membership in the association.
3. In fixing the precedence of the essays submitted the board will take into consideration, primarily, originality, comprehensiveness, and the practicability and utility of the opinions advanced, and, secondarily, literary character.
4. Essays will consist of not less than 10,000 or more than 12,000 words, exclusive of tables.
5. Each competitor will send three typewritten copies of his essay in a sealed envelope to the secretary of the association, so as to reach that officer *at least one month before the next ensuing annual meeting*, in the present case on or before Sept. 10th, 1904.
6. The essay shall contain nothing to indicate the identity of the author. Each one, however, will be authenticated by a *nom de plume*, a copy of which shall, at the same time as the essay, be transmitted to the secretary in a sealed envelope, together with the author's name, rank and address.
7. The envelope containing the name of the successful competitor will be publicly opened at the next succeeding annual meeting of the association and the prize thereupon awarded.
8. The successful essay becomes the property of the Association of Military Surgeons of the United States and will appear in its publications.

The board of award consists of Lieutenant-Colonel John Shaw Billings, U.S. Army, Brevet-Brigadier-General

George Ryerson Fowler, New York, and Surgeon Henry Gustav Beyer, U.S. Navy. The secretary of the association is Major James Evelyn Pilcher, Carlisle, Pennsylvania, U.S.A. The essayist securing first place will receive a gold medal of the value of $100. The essayist securing second place will receive a life membership in the association of the value of $50.

THE annual general meeting of the Society of the Members of the Royal College of Surgeons of England will be held at the Frascati Restaurant, Oxford-street, on Tuesday, Nov. 10th, at 7 P.M. The meeting will be followed by a dinner at 7.30. Any member wishing to dine will oblige by communicating with the honorary secretary, Society of Members of the Royal College of Surgeons of England, Elmbank, West Hill, Putney, S.W.

THE annual dinner of the staff and past and present students and friends of the Royal Dental Hospital of London will take place on Saturday, Nov. 21st, in the Whitehall Rooms of the Hôtel Métropole under the presidency of Mr. F. J. Bennett, M.R.C.S., L.D.S. Eng. All communications on the subject should be addressed to the Dean at the Royal Dental Hospital, 32, Leicester-square, London.

THE November dinner of the Aberdeen University Club in London will be held at the Trocadéro Restaurant, Shaftesbury-avenue, W., on Wednesday, Nov. 18th, at 7 P.M., Professor George Pirie being in the chair. Members desiring to be present should communicate with the honorary secretaries, Mr. J. Malcolm Bulloch and Dr. Robert J. Collie, 25, Porchester-terrace, W.

THE authorities of Yale University, U.S.A., have invited Dr. C. S. Sherrington, F.R.S., Holt professor of physiology in the University of Liverpool, to succeed Dr. J. J. Thomson, F.R.S., professor of physics in the University of Cambridge, as lecturer under the Silliman Memorial Endowment. The lectures will be delivered at Yale University in the spring of next year.

A GENERAL monthly meeting of the members of the Royal Institution was held on Nov. 2nd, Sir James Crichton-Browne, treasurer and vice-president, being in the chair. Mr. A. K. Huntingdon, Sir Oliver Lodge, Mr. J. Francis Mason, and Mr. Edward H. Woods were elected members.

KING EDWARD VII. SANATORIUM.

HIS MAJESTY THE KING went on Nov. 3rd to Lord's Common, Midhurst, and laid the foundation-stone of King Edward VII. Sanatorium. Special trains from London took down many medical men interested in the open-air treatment of tuberculosis and they were taken to the site from Midhurst and Haslemere stations in brakes, but the steepness of the ascent to Lord's Common rendered the progress of the party very slow, inducing many to proceed to their destination on foot. The sanatorium is placed in park-like grounds at an altitude of about 500 feet. The spot where the buildings will be erected is sheltered by pine trees on rising ground, while the southern aspect is open and affords a charming view over the South Downs towards Chanctonbury Ring. The sanatorium will be built in two portions—an administrative building and a building for the patients. As far as could be made out in the present unfinished state the institution promises to be the most perfect of its kind.

The King arrived at the sanatorium shortly before one o'clock and was immediately conducted by Lord Abergavenny to the pavilion where the foundation-stone was suspended in readiness for the ceremony.

An address was then read by Sir WILLIAM H. BROADBENT, Bart., K.C.V.O., the chairman of the advisory committee. The committee consisted of the following: Sir William Broadbent (chairman), Sir Richard Douglas Powell, Bart., K.C.V.O., Sir Francis Laking, Bart., G.C.V.O., Sir Felix Semon, C.V.O., Sir Hermann Weber, Dr. C. Theodore Williams, Lord Sandhurst, Lieutenant-Colonel Lascelles, Sir Frederick Treves, Bart., K.C.V.O., C.B., and Dr. P. Horton-Smith and Dr. John F. H. Broadbent, secretaries.

THE ADDRESS.

The advisory committee appointed by your Majesty to carry out your Majesty's gracious intention of providing for the open-air and sanatorium treatment of consumption occurring in the classes above the very poor but unable to meet the expense of prolonged residence in private sanatoria, desire humbly to express their satisfaction that the project has reached the stage which offers the occasion for your Majesty's presence here to-day. The site, which after examination of many parts of the country they were able to secure, fulfils in their judgment every requirement for such an institution and they trust that its advantages will be apparent to your Majesty even at this period of the year. The extent of land acquired is 151 acres and was purchased from Lord Egmont. To the south it is open and covered by heather and bracken, while the northern and higher part is well timbered by fine fir-trees. The ground slopes gently to the south, affording a maximum of exposure to the sun; the soil is the lower greensand and the climate particularly suitable. The building will stand at the elevation of nearly 500 feet and will command a view over the valley of the Rother to the South Downs. It will be sheltered from the north and east by a gradual rise of the ground to a height of 630 feet and by beautiful pine woods which will be laid out in walks suitable for the graduated exercise which forms part of the treatment. To the west is an open common with fine views which will be accessible to patients who are convalescent and capable of vigorous exercise. The plans and elevations of the sanatorium as designed by Mr. Percy Adams, the architect, have been submitted to your Majesty. In order that the best principles of construction and management, as approved by the experience of existing sanatoria, and new suggestions in advance of these might be brought to bear upon the institution, your Majesty offered prizes of the value of £500, £200 and £100 respectively for the best essays and plans and with the same object members of the committee and the architect visited sanatoria on the continent and in this country. The part of the building to be occupied by the patients will be a long two-storey building. Each patient will have a separate room and there will be a balcony upon which the patients can sit out or upon which the bed in case of need can be wheeled. For the further enjoyment of open air there will be *Liegehallen* and shelters in the grounds. The total number of beds will be 100 and at your Majesty's suggestion accommodation has been provided for 12 well-to-do patients so as not to shut out entirely the more wealthy classes from the special advantages which it is hoped will be afforded by the institution. Some delay has been occasioned by difficulties with regard to the water-supply. According to the geological survey water of excellent quality was to be found in the greensand underlying the site. This proved to be the case on boring, but the water was laden with extremely fine sand which would have interfered with pumping and rendered the supply uncertain. It was therefore necessary to go elsewhere and springs issuing from the same stratum of greensand to the north and capable of supplying 60,000 gallons a day have been secured by purchase from Lord Egmont. The water collected as it emerges from the ground is conveyed to a collecting reservoir near Henley Common and pumped up to a cistern holding 160,000 gallons at the highest point of the site, about 100 feet above the roof of the building. It will thus be available in case of fire as well as for the daily demand of the sanatorium which is estimated at 20,000 gallons as a maximum. The committee desire to tender their humble thanks to your Majesty for the encouragement afforded them in their task and for the interest manifested in the beneficent work placed under their supervision, a striking instance of which is given in your Majesty's presence here to-day. It is their earnest hope that the erection of which your Majesty now lays the foundation-stone may be worthy of the name it will, by your gracious permission, be honoured in bearing—the King Edward VII. Sanatorium.

The KING, in reply, said: My Lords and Gentlemen,—It gives me great pleasure to come here to-day to lay the foundation-stone of my sanatorium for tuberculosis. When a generous donor, whom I regret I am not allowed publicly to thank, placed at my disposal a large sum of money for any philanthropic object which I might have in view I at once decided to devote it to the erection of an open-air sanatorium, having been so greatly impressed with the immense benefit which institutions of this nature conferred on those suffering from pulmonary diseases. It is my hope that by these means the malady may be arrested in the case of not a few of those who would be treated in the institution, while I further trust that on their return home, by diffusing among their relatives and friends a knowledge of the infinite importance of fresh air and sunshine in maintaining health, the conditions under which in so many homes tuberculosis flourished will be sensibly diminished. I note with satisfaction that the site which my committee have secured fulfils all the essential requirements of a sanatorium, and I trust that the sandy soil, the southern aspect, and the pine trees which give protection from the north and the east will assist in restoring health to the inmates of the institution. I am aware that this site has not been chosen without investigating many others, and I thank my committee, and especially among them Dr. Theodore Williams,

for the many visits which they have paid to other possible sites in various parts of England. You, Sir William Broadbent, have alluded to the difficulty experienced in obtaining a satisfactory supply of water and to the delay which has in consequence been caused in commencing the building of the institution. This was unavoidable, for without a proper supply of water an otherwise excellent site becomes valueless. I am glad now to know that through the ingenuity and skill of Mr. Brough Taylor all difficulties have been overcome and that an ample supply of absolutely pure water has been obtained. I observed with satisfaction in driving here the condition of the road leading to the institution, which has recently been constructed. The great rapidity with which this has been completed, under the supervision of Messrs. John Aird and Sons, is, I hope, an earnest of the way in which the building of the sanatorium itself will be pushed forward now that all preliminary difficulties have been overcome. You have alluded in general terms to the character of the building which will be erected. As you have rightly stated it will be for the accommodation not of the very poor—they are already being provided for—but of those of slender means who are unable to meet the expenses of prolonged residence in private sanatoria. A certain number of beds will also be reserved for more wealthy patients. I am glad to know that while no necessary comforts which will add to the well-being of the patients will be omitted there will be a total absence of all luxury and of expenditure of money on superfluous appointments. I regret that it was not possible for the Queen to accompany me here to-day. Like myself, she is deeply interested in the fight against tuberculosis and has proved it by permitting the Queen Alexandra Sanatorium at Davos to be called by her name. We both of us pray that the institution of which I am about to lay the foundation stone may receive the blessing of God and that those who come to reside here may find renewed health and strength to enable them to carry out their duties in the world.

The Bishop of CHICHESTER then conducted the religious service and the stone was declared to be well and truly laid by the King.

His Majesty before leaving spent some time conversing with the members of the advisory committee and recognised one or two of the general company present.

TRANSVAAL ADMINISTRATION REPORTS FOR 1902.

PUBLIC HEALTH DEPARTMENT.

OUT of a volume consisting of 264 pages of Blue-book dimensions 28 are devoted to the report of the health of the Transvaal during 1902. Dr. George Turner, medical officer of health of the Transvaal, laments the impossibility of getting a trustworthy report owing to insufficiency of returns, statistics, &c. This can be readily understood when it is remembered that up to June 1st, 1902, warlike operations were still in progress. The group of diseases classed together as "typhus, typhoid, enteric, gastric, or typho-malarial fever" accounted for 194 deaths out of a total of 2906 patients under observation. Of the 194 deaths 78 were of white people and 116 were of coloured. Dysentery claimed the largest number of victims, however, amounting to 228 out of the total of 2906. Malaria accounted for only 17 deaths. One death only from scarlet fever is recorded and six from measles. Classified with small-pox and chicken-pox we find the unfamiliar term of "amaas," a term which no doubt has a local meaning but is not included amongst the official nomenclature of diseases and therefore requires explanation. In the leper asylum at Pretoria there were 230 leper patients on Dec. 31st, 1902, being an increase of 14 upon the number resident in the asylum on Jan. 1st, 1902. Dr. Turner states that it is very doubtful if heredity plays any part in causing leprosy; that leprosy is conveyed in some way by contagion is incontestable; and that in the Transvaal there is not a particle of evidence that fish in any way influences the spread of the disease. As regards vaccination the result of experience in the Transvaal is summed up thus: "I am by no means impressed with the desirability of using calf lymph. I am of opinion that arm-to-arm vaccination is more efficient and when properly carried out is perfectly safe."

An excellent report by Mr. R. Fox Symons, medical officer of health of Pretoria and district, specifies the causes of deaths registered in his district during the year 1902, and shows that of 486 deaths 51 persons died from dysentery and 29 from enteric fever. Pneumonia caused 57 deaths and enteritis 61. The high percentage of deaths due to intestinal ailments, enteric fever, enteritis, and dysentery, was the most striking feature of the report.

Mr. C. L. Sansom, medical officer of health of the Witwatersrand district, divides his report for the year into two, the first part ending June 30th, 1902. In almost all districts he comments on the unsatisfactory condition of the water-supply.

At the bacteriological laboratory at Daspoort, under the direction of Dr. Theiler, valuable work was done in prosecuting the study of horse-sickness, the so-called Rhodesian red-water disease amongst cattle, rinderpest, and biliary fever in horses. Trypanosomiasis was also studied and Dr. Theiler states that a fly belonging to the genus hippobosca was responsible for the spread of the disease.

Mr. W. C. C. Pakes during the year 1902 examined 860 specimens sent to him at the Government laboratories for analysis. Of these 805 required chemical investigation, 16 toxicological examination, and 39 bacteriological examination.

The Transvaal medical department, although not by any means completed, seems to be rapidly becoming organised, and on the basis of the work indicated in this report we look forward to many valuable additions to our knowledge in the near future.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN ordinary Comitia was held on Oct. 29th, Sir WILLIAM S. CHURCH, Bart., K.C.B., the President, being in the chair.

The following gentlemen having passed the required examination were admitted as Members: Dr. Sydney Walter Curl, Dr. Charles Edwin Percy Forsyth, Dr. James Edward Hill Sawyer, Dr. Jacob Snowman, and Dr. James George Taylor.

Licences to practise were granted to 102 gentlemen who had passed the required examinations.

The PRESIDENT announced that Mr. Arthur Richardson, late of Epsom College, had been appointed Jenks scholar for the ensuing year. He also announced that he had nominated Dr. T. H. Green, Dr. E. C. Seaton, and Dr. F. J. Wethered to be adjudicators of the Weber-Parkes prize and medals at the next award in 1906.

The PRESIDENT also asked the permission of the College to permit Sir Hermann Weber to deliver a lecture at the College on a date to be announced on Measures for prolonging Life. The request was granted.

The following communications were received: 1. From the Board of Trade, forwarding a translation into English of a report by a Norwegian committee respecting beri-beri occurring on European sailing ships. A committee was appointed to consider the report, consisting of the President, Sir Patrick Manson, and Dr. J. F. Payne. 2. From the secretary of the Royal College of Surgeons of England reporting certain proceedings of its Council on August 4th and Oct. 15th. 3. From the Society of Arts inviting the College to form with it a joint committee for advising on the award of the Swiney Prize in January next. The officers of the College were appointed to serve on the committee. 4. From Professor Silvanus Thompson on the approaching tercentenary of the death of Sir William Gilbert, President of the College in 1600. The treasurer and senior censor (Sir Dyce Duckworth), Dr. W. H. Allchin, and Dr. J. Abercrombie were appointed to act on any committee which might be formed to carry out suitable arrangements to mark the occasion.

The audited accounts for the year ending Sept. 29th last were received and adopted.

The quarterly report of the Finance Committee was received and adopted.

A report from the Committee of Management dated Oct. 5th was received and adopted. The committee recommended that Cranbrook School should be added to the list of institutions recognised by the Examining Board in England for instruction in chemistry, physics, and practical chemistry.

Dr. Norman Moore was re-elected a member of the Committee of Management. A report from the Laboratories' Committee dated Oct. 9th was received and adopted and Dr. Sidney Martin was re-elected a member of that committee.

A list of books and other publications presented to the library during the past quarter was received and the thanks of the College were returned to the donors. After some formal business the President dissolved the Comitia.

UNIVERSITY OF LONDON.

A MEETING of the Faculty of Medicine was held at the University, South Kensington, on Oct. 30th. Mr. H. T. BUTLIN, the Dean of the Faculty, presided and there were 41 members present.

Sir Isambard Owen was re-appointed Vice-Dean, and Dr. Lauriston Shaw honorary secretary, for the ensuing year.

Certain communications from the Royal Veterinary College, from the Board of Agriculture, and from the Royal Agricultural Society with regard to the institution by the University of a degree in veterinary science were considered by the faculty. It was resolved:—

That in the opinion of the Faculty of Medicine it is desirable to encourage the teaching and study of veterinary science within the University.

The reports of the several boards of studies comprised within the faculty as to their composition for the ensuing year were considered and with slight modifications were approved.

A report from the board of intermediate medical studies upon the arrangements for the special examinations in organic chemistry in 1904 which had been rendered necessary by the recent modifications in the curriculum was considered and approved.

A report was received from the board of intermediate medical studies defending the recent alterations in the curriculum so far as they concerned the teaching and examination in chemistry. The faculty resolved to refer this matter to a special committee for consideration and report. The committee was constituted as follows:—Dr. J. R. Bradford, Mr. H. T. Butlin, Dr. F. D. Chattaway, Mr. A. Pearce Gould, Dr. W. D. Halliburton, Dr. H. W. G. Mackenzie, Dr. Norman Moore, Sir W. Ramsay, Professor A. W. Reinold, Dr. W. G. Ridewood, Mrs. M. A. D. Scharlieb, Mr. S. G. Shattock, Dr. Lauriston E. Shaw, and Professor G. D. Thane.

ASYLUM REPORTS.

Dorset County Asylum (Annual Report for 1902).—The average number of patients resident during the year was 737—viz., 355 males and 382 females. The admissions during the year amounted to 156, comprising 77 males and 79 females. Of these 130 were first admissions. Dr. P. W. Macdonald, the medical superintendent, states in his report that the unfavourable nature of a number of the admissions was shown by the fact that many of the patients were aged and feeble and others greatly reduced in physical strength. Referring to an undesirable class of patient among the admissions Dr. Macdonald writes: "Another class of patient ..... was in strong evidence among the admissions in 1902, I mean the 'jail bird.' These men are often the lowest of the low and neither attention nor persuasion has the least influence in improving or altering their ways. When, as generally happens, they are evilly disposed and maliciously inclined, then their care and treatment become indeed trying and difficult. When this class of patient is a fairly educated being ..... his method of influencing others, his persistent, unfounded complaints and studied abuse are a source of trouble and worry far beyond the ordinary class of patient." Two causes, heredity and worry, apparently overshadow all other causes and remain closely linked together in the production of insanity. The number of patients discharged as recovered during the year amounted to 38—viz., 17 males and 21 females, or 5·1 per cent. of the average number resident. The deaths during the year amounted to 60—viz., 35 males and 25 females, or 8·1 per cent. as calculated on the same basis. Of the deaths two were due to renal disease, three to cerebral degeneration, four to pulmonary tuberculosis, eight to cardiac disease, nine to general paralysis of the insane, 10 to senile decay, 12 to pneumonia and broncho-pneumonia, and the rest to other causes. Table 22 of the last census returns for the county of Dorset states that the county has sustained a net loss by migration of 10,171. "This excessive drain on the population has an important bearing on the high rate of lunacy in the county." The Commissioners in Lunacy state in their report that all parts of the asylum continued to be maintained in excellent order, that the wards were bright, cheerful, and plentifully supplied with objects calculated to interest the patients, that the dormitories without exception were sweet and clean, that the bedding was in a very satisfactory condition, that the private patients were very comfortably lodged in special wards, that the personal condition and dress of the patients were satisfactory, and that the medical case-books and records were very well kept. The committee of management states in its report that a new building, at an estimated cost of £39,500, is in course of erection for the admission of private patients. The weekly rate of maintenance per patient has remained at 9*s.* 4*d.* throughout the year. The committee reports very favourably upon the general efficiency of the officers and staff of the asylum.

Nottingham City Asylum (Annual Report for 1902).—The average number of patients resident during the year was 750, comprising 374 males and 376 females. The admissions during the year amounted to 184—viz., 89 males and 95 females. Of these 169 were first admissions. Mr. Evan Powell, the medical superintendent, states in his report that with regard to the causes of insanity in the cases admitted intemperance in drink heads the list, and it is noted "that the cases from this cause are practically in equal proportions of the sexes, which is quite unusual in the general statistics of the country. Side by side with this fact it is of interest to find that a much larger proportion of females to males are found to be suffering from general paralysis [of the insane] here than in other places which leads to the belief that there is a closer connexion between drink and this disease, as cause and effect, than is now admitted." Hereditary predisposition to insanity was found to be present in a large proportion of cases and influenza has been the cause of insanity in a few. The number of patients discharged as recovered during the year amounted to 60—viz., 33 males and 27 females, or 8·0 per cent. of the average number resident. The deaths during the year amounted to 72, or 9·6 per cent. as calculated on the same basis. The recovery-rate, adds Mr. Powell, may be considered satisfactory "considering the very large proportion of hopeless cases admitted." The death-rate was rather below the average of previous years. All the deaths were from natural causes and there was no occasion for holding an inquest. There was only one serious accident during the year—in the case of a male patient who accidentally fell and received a fracture and dislocation of the ankle. There were only three cases of infectious fever during the year—viz., one of scarlet fever and two of typhoid fever. All made good recoveries and there was no spread of the disease from any of the cases. The Commissioners in Lunacy state in their report that both divisions of the asylum were in excellent order, that the patients of both sexes were neatly dressed and well behaved, that the sleeping rooms and bedding were thoroughly clean and sweet, and that the medical records and case-books were carefully and intelligently kept. They point out that post-mortem examinations were made in the very creditable proportion of 97 per cent. of cases of death. The committee of management states in its report that the weekly charge of maintenance per patient has remained at 10*s.*, that the accommodation within the asylum is now sufficient for the requirements of the city, that the profit derived from the maintenance of out-county patients has enabled the whole of the cost of repairs and upkeep of the building to be met, and that it has not been found necessary to go to the finance committee for the sum estimated, and provided, for that purpose at the beginning of the year. The committee has visited the asylum every fortnight and when practicable has visited the wards and seen the patients and has been quite satisfied with the condition of the wards and the care and comfort of the patients.

Belfast District Asylum (Annual Report for 1902).—The average number of patients resident during the year was 956, comprising 458 males and 498 females. The

admissions during the year amounted to 267—viz., 116 males and 151 females; of these, 231 were first admissions. Dr. William Graham, the medical superintendent, states in his report that although the usual categories under which the causation of insanity is divided are heredity, drink, business anxieties, unhygienic conditions, and intermarriage, it ought to be known that modern science penetrates behind these specific causes to a theory of causation in general. "Briefly put, that theory is that certain forms of insanity are largely the result of various toxins or poisons acting on the nerve cells of the brain and nervous system which are associated with intellectual functions. These poisons may come from without, such as alcohol or morphine, or they may be generated from within through defective nutrition and other causes. When we speak of insanity being hereditary ..... what we mean is that certain nerve cells in certain persons have a special susceptibility to these poisonous influences." But we are as yet, continues Dr. Graham, too ignorant of the conditions under which the laws of predisposition operate to know whether one day we may not be able to control the hereditary transmission of the insanities. However, there are causes palpably at work which are absolutely under our control. "It is not too much to assert that half the existing insanity could be banished or contracted to inconsiderable limits were the hygienic conditions in the home, the school, and the factory what they ought to be." The number of patients discharged as recovered during the year amounted to 74—viz., 29 males and 45 females, or 7·8 per cent. of the average number resident. The deaths during the year amounted to 79, or 8·25 per cent. as calculated on the same basis. Of the deaths three were due to cardiac disease, five to renal disease, six to pulmonary and other forms of tuberculosis, seven to epilepsy, ten to senile decay, 15 to general paralysis of the insane, and the rest to other causes. "General paralysis of the insane claimed more victims this year than last. This unhappy state of affairs is, however, universal and is largely due to the greater stress and excesses of modern life." The general health of the inmates has been good throughout the year though the asylum has been overcrowded. The Inspector of Lunatics states in his report that the wards were bright and well ventilated, that the dietary of the patients was satisfactory, that all parts of the asylum were in good order, and that the medical case-books and records were well and carefully kept. A slightly increased cost of maintenance prevailed during the year, being due to exceptional expenses in connexion with the repair of the asylum.

Looking Back.

FROM

THE LANCET, *SATURDAY*, NOV. 5, 1825.

FOREIGN DEPARTMENT.

Rheumatic Gout cured by Acupuncturation.

M Andrieux, in the *Bulletin de l'Athenée*, gives the case of a man, aged 49 years, who, during the last 10 years, had suffered from attacks of gout in the knees, elbows, wrists, and the articulations of the fingers, which were permanently deformed. In December last the right foot became red, swelled, and extremely painful; a needle was inserted at the origin of the little toe and brought out under the malleolus externus. The needle was no sooner inserted than the patient felt himself relieved; he could move his foot and suffer it to be touched, whereas before the slightest motion was insupportable. Fearing a return of the pain, M Andrieux introduced a second needle below the malleolus internus; at the end of ten minutes the needles were taken out; they were considerably oxydized. The patient could rest his foot upon the ground and walk with ease, whereas a quarter of an hour before he could not bear the mere contact of the blankets. M Andrieux thinks that the electrical equilibrium which the needles establish between all the parts, is the cause of the success which attends acupuncturation. The opinion of M. Andrieux, on this point, is entitled to the more attention as he has devoted much of his attention to the influence of galvanism on the animal economy, and has, in many instances, applied this agent to therapeutics with the most successful results.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In 76 of the largest English towns 8812 births and 4718 deaths were registered during the week ending Oct. 31st. The annual rate of mortality in these towns, which had been 15·8, 15·8, and 15·9 per 1000 in the three preceding weeks, further rose last week to 16·3 per 1000. In London the death-rate was 15·8 per 1000, while it averaged 16·5 in the 75 other large towns. The lowest death-rates in these towns were 4·7 in Hornsey, 6·9 in Reading, 8·3 in Leyton, 9·9 in Southampton, 10·0 in Croydon, 10·2 in Hastings, and 10·4 in East Ham and in Newport (Mon.); the highest rates were 21·0 in Wigan and in Oldham, 21·8 in South Shields, 22·0 in Walsall, 22·1 in Rochdale, 23·3 in St. Helens, 24·6 in Rotherham, and 29·9 in Warrington. The 4718 deaths in these towns last week included 523 which were referred to the principal infectious diseases, against 704, 635, and 532 in the three preceding weeks; of these 523 deaths, 210 resulted from diarrhœa, 74 from measles, 61 from diphtheria, 53 from "fever" (principally enteric), 41 from whooping-cough, 40 from scarlet fever, and four from small-pox. No death from any of these diseases was registered last week in Hornsey, Bournemouth, Reading, Northampton, Smethwick, or Coventry, while they caused the highest death-rates in Great Yarmouth, Hanley, Wigan, Warrington, Preston, Rotherham, Sunderland, Gateshead, and Merthyr Tydfil. The greatest proportional mortality from measles occurred in Warrington, Bury, Preston, Rotherham, and Sunderland; from scarlet fever in Devonport and Walsall; from diphtheria in Portsmouth, Walsall, and York; from whooping-cough in Wigan, Rochdale, and Merthyr Tydfil; from "fever" in Walsall and Merthyr Tydfil; and from diarrhœa in Hanley, Handsworth, Blackburn, Preston, Rotherham, and Middlesbrough. Two fatal case of small-pox were registered last week in Gate-head, one in King's Norton, and one in Stockport, but not one in any other of the 76 large towns. The number of small pox cases under treatment in the Metropolitan Asylums hospitals, which had been 17, 11, and 34 on the three preceding Saturdays, had further risen to 42 on Saturday last, Oct. 31st; 12 new cases were admitted last week, against two, one, and 26 in the three preceding weeks. The number of scarlet fever patients in these hospitals and in the London Fever Hospital at the end of the week was 1828, against 1881, 1861, and 1858 at the end of the three preceding weeks; 199 new cases were admitted during the week, against 240, 208, and 209 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 146, 175, and 194 in the three preceding weeks, further rose to 260 last week, but were 32 below the number in the corresponding period of last year. The causes of 57, or 1·2 per cent., of the deaths in the 76 large towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Leicester, Bradford, Leeds, Newcastle-on-Tyne, and in 46 other smaller towns; the largest proportions of uncertified deaths were registered in Hanley, Smethwick, Liverpool, Bootle, St. Helen's, Manchester, Salford, Barrow-in-Furness, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in eight of the principal Scotch towns, which had been 16·0, 16·1, and 16·7 per 1000 in the three preceding weeks, further rose to 17·0 per 1000 during the week ending Oct. 31st, and was 0·7 per 1000 in excess of the mean rate during the same period in the 76 large English towns. The rates in the eight Scotch towns ranged from 14·4 in Leith and 14·9 in Edinburgh to 20·1 in Perth and 22·0 in Paisley. The 557 deaths in these towns included 33 which were referred to diarrhœa, 11 to measles, seven to whooping-cough, five to diphtheria, four to scarlet fever, and two to "fever," but not one to small-pox. In all, 62 deaths resulted from these principal infectious diseases last week, against 71, 72, and 77 in the three preceding weeks. These 62 deaths were equal to an annual rate of 1·9 per 1000, which was slightly above the mean rate last week from the same diseases in the 76 large English towns. The fatal cases of diarrhœa, which had been 41, 35, and 39 in the three preceding weeks, further declined last week to 33, of which

17 were recorded in Glasgow, six in Dundee, three in Edinburgh, two in Aberdeen, two in Paisley, and two in Greenock. The deaths from measles, which had been eight, 14, and 16 in the three preceding weeks, declined again to 11 last week, and included nine in Glasgow. The fatal cases of whooping-cough, which had been six, seven, and eight in the three preceding weeks, decreased again last week to seven, of which three occurred in Glasgow. The deaths from diphtheria which had been four in each of the two preceding weeks, rose to five last week, and included two in Glasgow. The four fatal cases of scarlet fever corresponded with the number in the preceding week and included two in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had been 62, 82, and 92 in the three preceding weeks, further rose last week to 108, but were 38 below the number in the corresponding period of last year. The causes of 18, or more than 3 per cent., of the deaths registered in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19·7, 18·6, and 21·5 per 1000 in the three preceding weeks, declined again to 21·2 per 1000 during the week ending Oct 31st. During the past four weeks the death-rate has averaged 21·2 per 1000, the rates during the same period being 15·2 both in London and in Edinburgh. The 154 deaths of persons belonging to Dublin registered during the week under notice showed a slight decline from the number in the preceding week and included seven which were referred to the principal infectious diseases, against nine nine, and 13 in the three preceding weeks; of these, four resulted from diarrhœa, two from whooping-cough, and one from scarlet fever, but not any from small-pox, measles, diphtheria, or "fever." These 7 deaths were equal to an annual rate of 1·0 per 1000, the death-rates last week from the principal infectious diseases being 1·6 in London and 1·1 in Edinburgh. The fatal cases of diarrhœa, which had been four, five, and eight in the three preceding weeks, declined again last week to four. The 154 deaths in Dublin last week included 34 of children under one year of age and 36 of persons aged 60 years and upwards; the deaths of both infants and elderly persons showed a slight decline from the respective numbers in the preceding week. Eight inquest cases and six deaths from violence were registered, and 67, or nearly 44 per cent., of the deaths occurred in public institutions. The causes of 11, or more than 7 per cent., of the deaths registered in Dublin last week were not certified.

THE SERVICES.

ROYAL NAVY MEDICAL SERVICE.

THE following civil practitioners have been appointed Surgeons and Agents:—G. Myles, at Limerick; J. E. Hibbert, at Penarth; S. E. Martin, at Newry; P. L. Watkin Williams, at Bridgwater; H. M. Hughes, at Stockton; and P. Aitken, at Buness (dated Oct. 27th, 1903).

ROYAL ARMY MEDICAL CORPS.

Captain H. V. Prynne is appointed specialist in ophthalmology in the Thames and Woolwich Districts.

Lieutenant-Colonel W. O. Wolseley to be Colonel, vice W. L. Gubbins, promoted (dated August 27th, 1903). Lieutenant-Colonel A. T. Sloggett, C.M.G., to be Colonel, vice W. B. Allin, deceased (dated Sept. 9th, 1903).

INDIAN MEDICAL SERVICE.

The King has approved of the following promotions among officers of the Indian Medical Service made by the Government of India:—To be Colonel: Lieutenant-Colonel (temporary Colonel) Thomas James Hackett Wilkins (dated June 30th, 1903). Captains to be Majors (dated July 28th, 1903): *Bengal Establishment:* Benjamin Hobbs Deare, Benjamin Curwen Oldham, Robert Bird, Sidney Browning Smith, John Stuart Shepherd Lumsden, George Hewitt Frost, Edmund Wilkinson, George Francis William Ewens, Charles Duer, and Henry Stotesbury Wood. *Madras Establishment:* James Entrican, Walter George Primmore, Charles Donovan, Jeremiah Penry, Douglas Henry McDonell Graves, and Charles Henry Leet Park. *Bombay Establishment:* Thomas Walter Irvine.

The King has also approved of the retirement from the service of the undermentioned officers:—*Bengal Establishment:* Lieutenant-Colonel Samuel Ferguson Bigger (dated Sept. 1st, 1903); Major Basanta Kumar Basu (dated August 21st, 1903).

The following appointment has been made to the Staff in India:—Major W. H. W. Elliott, D.S.O., to be secretary to the Principal Medical Officer, His Majesty's Forces in India, vice Lieutenant-Colonel J. Shearer, D.S.O., vacated (dated August 13th, 1903).

IMPERIAL YEOMANRY.

Royal 1st Devon: Francis Ernest Little to be Surgeon-Lieutenant (dated Oct. 31st, 1903). Duke of Lancaster's Own: Surgeon-Lieutenant-Colonel W. W. Wingate-Saul retires under the provisions of paragraph 54 Yeomanry Regulations, and is granted the honorary rank of Surgeon-Colonel, with permission to wear the prescribed uniform on retirement (dated Oct. 31st, 1903). 3rd County of London (Sharpshooters): Surgeon-Lieutenant E. M. Rooke resigns his commission (dated Oct. 31st, 1903).

VOLUNTEER CORPS.

Royal Garrison Artillery (Volunteers): 1st Aberdeenshire: Surgeon-Lieutenant H. McI. W. Gray to be Surgeon-Captain (dated Oct. 31st, 1903). The Highland: Charles Gordon Mackay, late Lieutenant, to be Surgeon-Lieutenant (dated Oct. 31st, 1903).

Rifle: 1st Surrey (South London): Daniel Oliver Kerr to be Surgeon-Lieutenant (dated Oct. 31st, 1903).

Correspondence.

"Audi alteram partem."

THE BRITISH MEDICAL BENEVOLENT FUND.

To the Editors of THE LANCET.

SIRS,—Will you allow me to supplement Sir William Broadbent's appeal for the British Medical Benevolent Fund (to which I am a subscriber) by pointing out that no practitioner residing within 20 miles of London ought to, or need, leave his widow and orphans unprovided for if he will but join the Society for the Relief of Widows and Orphans of Medical Men, and pay one guinea subscription half-yearly up to the time of his decease. The office of the society is at 11, Chandos-street, Cavendish-square, W.

I am, Sirs, yours faithfully,

CHRISTOPHER HEATH, F.R.C.S. Eng.,
President of the Society.

Cavendish-square, W., Oct. 31st, 1903.

THE LUNG REFLEX OF ABRAMS.

To the Editors of THE LANCET.

SIRS,—I am obliged to Dr. A. G. Auld for his courteous and interesting reply to my criticisms on his letter to THE LANCET of Oct. 17th, p. 1118. May I say that I have an entirely open mind as to the existence of a pulmonary reflex and that I was prompted to write simply because the evidence adduced by Dr. Auld in favour of such a reflex did not appear to me to be conclusive; nor do I find the fresh evidence he advances in his second letter wholly convincing. Dr. Auld points out that the thoracic expansion which results from protracted rubbing of the chest or vigorous percussion of the epigastrium persists longer than that which follows upon the voluntary taking in of deep breaths, from which he argues that the expansion in the former case is not due to the deep breaths which he admits are induced by the stimuli referred to and must therefore result from a reflex bronchial dilatation. May we not, however, explain the longer duration of the expansion in that case on the assumption that in it some degree of dyspnœa is induced, while in the latter case the very opposite condition of apnœa is brought about?

The other evidence advanced by Dr. Auld, though of a more convincing kind, is yet open to criticism. He points to the facts that the spraying with ether or the long-continued percussion of the chest over a collapsed pulmonary base causes a local (as against a general) expansion of the lung; but is it not possible that these stimuli thus

locally applied may excite the local inspiratory muscles more than the others? The sudden application of cold to the chest, for example, is known to excite inspiration and tends, I suggest, when applied to one side to cause it to expand more than the other. In regard to the thoracic expansion said to follow upon the absorption into the blood of such drugs as atropine and hyoscine I would ask whether, even granting its origin in bronchial dilatation, we can justly refer to it as an example of genuine reflex action?

The remaining portion of Dr. Auld's second letter touches a side issue raised by myself. Assuming the existence of a reflex bronchial dilatation, how is the thoracic expansion resulting from it effected? In criticising my explanation of this expansion Dr. Auld unwittingly fails to do me justice. He says that in making "the general assertion" that whatever thoracic enlargement results from reflex bronchial dilatation is *chiefly* effected by the inspiratory muscles I "fail to appreciate" the fact that the chest tends to recoil outwards when pulmonary suction is diminished; it is, however, clear from the employment of the italicised word that I admitted the operation of some other factor, and in point of fact the other factor I had in mind is the very one for which Dr. Auld calls me to task for neglecting; for in an earlier part of my letter I say "the primary effect of bronchial dilatation must be to cause a relaxation of pulmonary tissue and thus, by diminishing the suction action of the lungs on the thoracic walls and diaphragm, somewhat to increase the size of the chest cavity"—i.e., by passive outward recoil. I then go on to observe that the thoracic expansion would not end here but that the inspiratory muscles would come into augmented action so as to tone up the relaxed pulmonary tissue to the norm, and that through out life "the inspiratory muscles are ever busy keeping the lungs at the requisite degree of stretch." Dr. Auld does not accept this proposition. As I believe it to express an important principle in thoracic physics I shall be grateful to you, Sirs, if you will afford me this opportunity of vindicating it.

All will agree that pulmonary suction is not a merely accidental phenomenon but that, on the contrary, it serves some useful purpose or purposes, and such being the case we may be sure that the organism will strive to maintain it at the requisite level. I contend that this end is achieved by the inspiratory muscles. We shall, I think, be helped to an understanding of this position by inquiring into the origin—the coming into being—of pulmonary suction. Before birth the chest walls are collapsed upon their solid and liquid contents; at birth the thorax is expanded by the inspiratory muscles and air thus sucked into the lungs. Now it might conceivably happen that just sufficient thoracic expansion is effected at birth to open all the tubes and vesicles of the lung *without putting the pulmonary tissue on the stretch*—without, that is, inducing pulmonary suction—and such is possibly the case for a short time after birth. Very soon, however, the chest is expanded beyond this point, the pulmonary fibres being actually stretched, and in this way pulmonary suction is gradually established. Now I can conceive of no other means by which this stretching can be effected than by the action of the inspiratory muscles, and my contention is that these muscles are throughout life ever on the watch to maintain pulmonary suction at its proper level. It is true that after the first months—perhaps I should say years—of post-partum life pulmonary suction operates even at the end of an ordinary expiration, when, i.e., there is little or no active contraction of the inspiratory muscles, a fact which is shown by the thoracic expansion which takes place in the cadaver after puncturing the pleurae and thus allowing the lungs to collapse; but this, I would observe, is because the inspiratory muscles having through a long period kept the chest expanded beyond the point at which suction first appears the chest has become "set" in this position—to wit, in the neutral position referred to—one, namely, corresponding (about) to the position of the chest at the end of an ordinary inspiration. This "setting" of the chest in the "neutral" position undoubtedly helps to relieve the inspiratory muscles in their function of maintaining pulmonary suction at the norm; nevertheless we shall find if we look at the matter more closely that this function belongs essentially to the inspiratory muscles.

In the first place, the neutral position is largely determined by the shortening of the inspiratory muscles owing to their action preponderating over that of the expiratory muscles. Then there is the fact that in widespread paralysis of the inspiratory muscles, such as may, for example, occur in idiopathic muscular palsy, the chest tends to collapse and in some cases (especially in young subjects) this happens to such an extent as to lead, I can have no doubt, to the entire disappearance of pulmonary suction. What could better show the ultimate dependence of this latter upon the inspiratory muscles? Finally, I would in this connexion draw attention to the fact that the neutral position of the chest is liable to great modification through the forcible action of the inspiratory muscles. Consider, for example, what great permanent expansion can be effected in the contracted chests of sedentary youths by suitable exercises and the steady augmentation in the size of the thorax which takes place in hypertrophous emphysema. In both cases a shifting of the neutral point occurs and there can be no doubt that this is effected by an augmented action of the inspiratory muscles.

I conclude, therefore, that pulmonary suction is essentially dependent upon the action of these muscles and if I have satisfactorily established this conclusion I have proved the thesis "the inspiratory muscles are ever busy keeping the lungs at the requisite degree of stretch"; for if it is of great moment (and who can doubt it is?) that the organism shall maintain pulmonary suction at the norm we may be quite sure that it will avail itself of the only means at its disposal for achieving this end—i.e., the action of the inspiratory muscles. Many instances can be cited of the inspiratory muscles coming into extra action for the purpose of raising pulmonary suction to the normal level. Perhaps the most interesting is the case of hypertrophous emphysema already referred to. I am pleased to find Dr. Auld accepting my view that one of the reasons why the chest enlarges in this affection is in order to tone up the relaxed pulmonary fibres. Another instance is afforded by the case of a large pleural effusion under negative pressure; in this case we may find considerable expansion of the thorax; such expansion is manifestly brought about by the inspiratory muscles and has for one of its objects the maintenance of the normal pulmonary suction which otherwise would stand in danger of disappearing altogether. It is now, I trust, clear why in my former letter I concluded that, given considerable relaxation of the bronchial muscles, the inspiratory muscles will come into extra action in order to tighten up the relaxed pulmonary tissue, for otherwise pulmonary suction must necessarily fall below the norm.

What purpose or purposes, I am tempted to ask in conclusion, are served by pulmonary suction? Though doubtless it helps breathing by promoting the upward movement of the diaphragm I can have little doubt that its essential function is to facilitate cardiac diastole, notably the diastole of the auricles and of the right auricle in particular. Nature has, in fact, cunningly placed the heart in a partial vacuum, from which I conclude that the inspiratory muscles take no small share in aiding cardiac diastole and in this way favouring the return of blood to the heart. Apologising for the length of this letter,

I am, Sirs, yours faithfully,

Wimpole-street, W., Nov. 1st, 1903. HARRY CAMPBELL.

KING'S COLLEGE HOSPITAL REMOVAL FUND.

To the Editors of THE LANCET.

SIRS,—As already reported in THE LANCET,[1] at a meeting of the governors held on Oct. 12th, 1903, it was finally decided to remove King's College Hospital from its present position to a site in South London. The main object of the removal is more fully to carry out the idea of the charity by transferring it from a district largely denuded of its poor inhabitants to one in which there is a dense population urgently in need of hospital accommodation. By the removal this urgent need which has long existed in South London will be met without the addition of another large general hospital to those at present existing, most of which already have a constant struggle in meeting their necessary expenditure.

The governors when sanctioning the present course authorised the joint committee appointed by the council of King's College and the committee of management of the hospital to act for them in all matters appertaining to the removal. In accepting this authority the committee are fully conscious of the great responsibility they have taken

[1] THE LANCET, Oct. 17th, 1903, p. 1110.

upon themselves and they are determined jealously to guard the traditions of the charity and the many benefactions made to it. A sum of not less than £300 000 will be required to build and to equip the hospital, so as to enable it to meet the needs of the three quarters of a million of population who will be benefited by the removal.

The committee now appeals to the public for help towards raising this required sum and it feels confident that it will not appeal in vain. The committee is allowed to add that this appeal is issued with the approval of His Royal Highness the Duke of Cambridge, President of the hospital. It also has the cordial support and hearty approval of His Grace the Archbishop of Canterbury, one of the Vice-Presidents of the hospital and visitor of the College. A suitable site of 12 acres in South London has been presented to the hospital by the munificence of a single donor.

It remains but to say that donations to the Removal Fund will be thankfully received by the treasurer, Mr. Charles Awdry, 2, Hyde Park-street, W.; by Lloyd's Bank, Limited, Law Courts Branch, 222, Strand, bankers to the hospital; and at King's College, Strand, by Mr. A. MacLeod Forest, the secretary King's College Hospital Removal Fund.

We are, Sirs, yours faithfully,

W. F. D. SMITH,
Chairman of the Joint Committee Removal of King's College Hospital.
METHUEN, Lieutenant General,
Chairman of the Hospital Committee.
E. S. ROFFEN,
LISTER,
Vice-President and Consulting Surgeon of the Hospital.
CHARLES AWDRY,
Treasurer.
ARTHUR C. HEADLAM,
Principal of King's College.
DAVID FERRIER,
Senior Physician of the Hospital.
W. WATSON CHEYNE,
Senior Surgeon of the Hospital.

PHIMOSIS AND CANCER OF THE PENIS.

To the Editors of THE LANCET.

SIRS,—In a letter in THE LANCET of August 8th, p. 423, it is contended that phimosis is not a potent cause of cancer of the penis. This perhaps may be the case in simple phimosis but it is surely not so (at any rate in this country) if the phimosis becomes complicated with venereal disease. During the last five years 25 cases of cancer of the penis have come under my observation—13 were submitted to operation, while seven were inoperable owing to too advanced growth. At least 15 of these cases gave a similar history: an original phimosis, some venereal trouble, chronic discharge from the preputial orifice, increasing pain and swelling, and finally perforation of the prepuce and protrusion of the growth. It must, of course, be taken into consideration that these cases were absolutely untreated from the beginning and the disease was allowed to take its course unchecked. It may be noted that phimosis is rare, while cancer of all kinds is uncommon. Sections of the 18 cases operated upon were examined, the growth in all cases being a squamous epithelioma.

I am, Sirs, yours faithfully,

Seoul, Corea, Sept. 20th, 1903. EDWARD H. BALDOCK.

THE TREATMENT OF GOITRE BY THE USE OF DISTILLED OR RAIN WATER.

To the Editors of THE LANCET.

SIRS,—In reference to the above I should like to put on record four cases under my care in this district. Although this communication tells against the usefulness of the method and must necessarily reach you very long after the already published facts, yet it is so extremely important for all aspects of a treatment to be impartially set forth that I venture to send you the following notes.

Outtrim is a colliery district in South Gippsland, Victoria, quite close to the extreme south-east corner of the continent. It supports about 2600 inhabitants and is very hilly. The whole water-supply consists of rain water collected on galvanised-iron roofs and stored in galvanised-iron tanks and is from my own analysis of excellent quality. It is true that some underground tanks exist in which rain water is stored, but these are not accessible to the patients cited. During the 12 months I have been in practice in the locality four patients suffering from goitre have come under my care with the following histories, symptoms, &c.

CASE 1.—The patient was a woman, aged 35 years, born in Melbourne but resident in Outtrim for the past seven years. Five years ago she first noticed the swelling in the neck which has got progressively larger ever since. She suffers from attacks of a sense of suffocation and also from occasional attacks of dyspnœa. She exhibits slight exophthalmos and throbbing of the carotid arteries and a uniform enlargement of the thyroid gland which is of about the size of a large hen's egg. She is morose, suspicious, and melancholy in disposition and complains of nervousness.

CASE 2.—The patient was a woman, aged 35 years, who was born and spent the early part of her life in Cumberland but came out to Australia in early adult life and has been resident in this district for the past five years. She had a slight goitre in England but it caused her no trouble until about 12 months ago when it began to enlarge rapidly. The enlargement of the gland has been accompanied by paroxysms of dyspnœa and hot flushes. The swelling, which is about as big as a small orange, involves the whole thyroid unequally, the right lateral lobe is by far the larger mass and pushes the trachea well over to the left. It undergoes remarkable changes in size in the course of a few days. The patient is very nervous and emotional and readily weeps on being questioned.

CASE 3.—The patient was a girl, aged two and a half years, who was born and brought up in the district. The parents state that the child was born with a goitre and their then medical attendant stated the same to them. The thyroid is of about the size of a walnut and uniformly enlarged (the thymus also can just be felt behind the sternum); it is not tender and has only enlarged proportionately to the growth of the child. The child suffers from *petit mal* and sometimes from bronchitis. The parents state "she occasionally complains of feeling choked."

CASE 4.—The patient was a woman, aged 32 years, who was born and spent the early part of her life in Cumberland; she came out to Australia at about 20 years of age and has been resident in the district for the past seven years. She has had a goitre ever since she can remember; it is stationary and gives rise to no symptoms (she consulted me for other troubles) and has got neither larger nor smaller since her stay in the district. The thyroid is uniformly enlarged to the size of a hen's egg.

It will be seen from the above that not only will rain water sometimes fail to benefit cases of existing goitre but two of the above-mentioned cases must have actually developed under the *régime*.

I am, Sirs, yours faithfully,

A. E. TAYLOR, M.B., B.C. Cantab.

Outtrim, South Gippsland, Australia.

CORDITE-EATING.

To the Editors of THE LANCET.

SIRS,—With reference to your note on Cordite-Eating in THE LANCET of Oct. 17th, p. 1137, it would seem that the first reference to cordite-eating by soldiers appeared in the *New Zealand Medical Journal* for March, 1902. In that number it is suggested by Surgeon-Captain Purdy, 6th N.Z.M.R., that cordite was eaten by men for the purpose of malingering and that the effect produced was a temporary pyrexia resulting in the individual affected being sent off duty. I should think it probable that many cases of ill-defined and continuous fevers for which no obvious cause could be discovered—cases in which the temperature would rise to over 102° F. at night and drop to normal in the morning—were cases of cordite eating. It is obvious that a man with a "temperature" would be sent off duty and if it continued he would be sent to hospital and kept there till his "fever" left him. The same thing doubtless applies to cases of "disordered action of the heart" and other anomalous ailments prevalent in military practice. When one considers the facility with which, even in the general hospitals, cordite could be obtained and what the soldiers on active service had to put up with, one considers why such a convenient form of malingering by those addicted to such practices was not resorted to more.

I am, Sirs, yours faithfully,

J. S. WARRACK, M.D. Aberd., D.P.H. Cantab.

Gravesend, Oct. 27th, 1903.

A SIMPLE METHOD OF PERFORMING INTESTINAL UNION.

To the Editors of THE LANCET.

SIRS,—As I have received numerous inquiries regarding the intestinal bobbins described in THE LANCET of Oct 24th, p. 1156, may I say that these are to be procured from the Medical Supply Association, 56, Sauchiehall-street, Glasgow. I shall esteem it a favour if you can give this publicity.

I am, Sirs, yours faithfully,

Glasgow, Oct. 31st, 1903. ALEX. MACLENNAN.

THE USE OF GLYCERINE INSIDE THE UTERUS.

To the Editors of THE LANCET.

SIRS,—I thank you for your criticism of my paper on the intra-uterine use of glycerine and formalin for drying the uterus after irrigation. I quite acknowledge the danger of injecting glycerine into the pregnant uterus to induce labour, but in that case the glycerine is injected between the membranes and the uterine wall and there is the danger of it separating the placenta and being forced directly into the maternal blood stream. This, I believe, is what actually happened in those cases in which untoward symptoms followed its use. When, however, the uterine sinuses are closed by contraction of the uterus after delivery and the formation of blood clot this risk is not present. Again, the glycerine in my method is injected through a catheter with a return flow and any remaining is expressed.

Into the merits of the question of uterine irrigation I will not ask you to let me enter, though personally I am now impressed with its usefulness. The point to which I wished to draw attention was the harmful effect of the water left in the uterus—a condition which is obviated by the passage of glycerine through its cavity after completion of the irrigation. Further experience of this method since writing the paper has confirmed my belief in its efficacy.

I am, Sirs, yours faithfully,

Glasgow, Nov. 2nd, 1903. DAVID WATSON.

RELAPSES IN SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—Dr. C. Dixson, in THE LANCET of Oct. 24th, p. 1193, mentions his experience of relapses in scarlet fever and asks if others have had similar experiences.

In the year 1892, when I was medical officer to the Nottingham Borough Isolation Hospital, I collected notes of 600 consecutive cases of scarlet fever attended by myself on the basis of which I wrote a paper on the complications of scarlet fever, from which I take the following extract: "Second attacks or relapses should, perhaps, hardly come under the head of complications, but as they are hardly mentioned in the ordinary text-books, or passed over as being very rare, I may state that there were 10 cases on my list (1·6 per cent. of the total number) in which a fresh rash with rise of temperature and the development of other typical symptoms occurred when there was no doubt that the patient had originally had scarlet fever. This occurred in the second week in two cases, in the third week in four, in the fourth week in two, once in the sixth, and once in the seventh week of the original attack." With regard to the explanation of such cases I do not see any difficulty in accepting the theory that in a minority of individuals the acquired immunity conferred by an attack of scarlet fever is of a more or less evanescent character and that when such persons are brought into, or kept in, an atmosphere highly charged with the micro-organisms of the disease they will catch the infection more than once, a relapse only differing from a second attack at a later period by the shortness of interval between its occurrence and that of the original disease.

I leave it to others to dogmatise as to the exact nature of the antitoxins or other ferments which are concerned in the process and will only, in conclusion, mention my own case as an instance of what I mean. As a child of 13 years I contracted scarlet fever and distinctly remember the annoyance of having to go back to bed again with a fresh rash and rise of temperature which came on during my convalescence. As others of my family had the disease at the same time there was plenty of opportunity for re-infection. Many years later, during my term of office at the Nottingham Isolation Hospital, at a time when I had to deal with a considerable number of severe cases of scarlet fever and was frequently occupied in brushing ulcerated throats with antiseptic solutions, I exposed myself to an atmosphere highly charged with the poison and was in consequence again attacked by the disease, attended by very severe throat symptoms. Trusting you will excuse the length and the personal nature of this communication,

I am, Sirs, yours faithfully,

Nov. 4th, 1903. J. DARLEY WYNNE, M.B. Dub., D.P.H., &c.

THE CENTRAL BRITISH RED CROSS COMMITTEE.

To the Editors of THE LANCET.

SIRS,—Permit me to draw the attention of your readers to the following.

The Central British Red Cross Committee has been charged with the duty of making known to the British public the existence of a fund instituted by H.I.M. the Dowager Empress Marie Féodorovna of Russia for encouraging inventors and others to devise improvements in the means of dealing with wounded and sick in the field. The announcement of the foundation of this fund was made at the Seventh International Conference of Red Cross Societies held at St. Petersburg in May, 1902. The money set apart for the above object, and which is called the Empress Marie Féodorovna International Red Cross Fund, consists of a sum of 100,000 roubles (about £11,000) graciously presented by Her Majesty, the interest of which is to be expended every fifth year in prizes to be awarded at each successive International Red Cross Conference. The prizes at the first competition, which will take place in 1907 (country to be hereafter named), will be three in number. They will be awarded to competitors who submit, in whole or in part, the best solution of problems connected with rendering aid to the wounded, whether on land or sea, and in the following directions: the surest and quickest means of searching for and removing the wounded from the field of battle; the best type stretchers or vehicles for moving the wounded to the dressing stations with the greatest rapidity and with the least degree of suffering; the means of saving lives at sea; the best installations in moveable hospitals, wagons, ships, &c., for the final evacuation of wounded and sick. The competition is an open one and intending competitors are informed that they will have to send their inventions to the exhibition of ambulance material which it is proposed shall be held quinquennially in connexion with the International Conference of Red Cross Societies. Further details can be obtained on application to the honorary secretary, Central British Red Cross Committee, 68, Victoria-street, London, S.W.

I am, Sirs, your obedient servant,

KNUTSFORD,
October, 1903. Chairman.

ERRATUM.—In the letter published in THE LANCET of Oct. 31st, p. 1257, headed "The Universities' Mission to Central Africa" and signed "Oswald A. Browne, M.D. Lond.," Dr. Browne's degree should have been given as *M.D. Cantab.*

NOTES FROM INDIA.

(FROM OUR SPECIAL CORRESPONDENT.)

The Plague Epidemic: Inoculation for the Punjab.—The Decimation of Mhow.—The Plague Mortality.

AN attempt is to be made to revive the practice of inoculation in the Punjab which was so grievously upset by the unfortunate accident at Mulkowal about this time last year. "Government has done all in its power to bring the advantages of inoculation prominently to the notice of the people" and "all that can be done now is to afford the greatest possible facilities for the inoculation of such persons as may desire of themselves to be inoculated." These are the latest

announcements but no information is given of the confidential report of the "accident committee." Perhaps we shall never know how the misfortune arose which broke down the Punjab Government's grand scheme of universal inoculation. The inference from the silence is that the finding must be an unpleasant one. There are three possible explanations—viz., that it was an accident in manufacture or an accidental contamination subsequently, or that it was an intentional crime and that the committee has not been able to discover the cause.

To revive inoculation all officers of the medical department with qualifications of a licentiate upwards will be allowed to perform it and will be furnished with the appliances, but the inoculators will be stationary not itinerant. Effort is also to be made to induce the people to evacuate infected places, especially in the early stages of an outbreak.

Later news from Mhow reveals the terribly virulent form of plague which has during the monsoon months attacked this city. Half of the population are reported to have left the city which according to the census contained about 35,000 people. On Sept. 4th the death-roll was 140 and for the week ending Sept. 12th 669 deaths were recorded. Up to Sept. 26th there had been 4313 deaths, practically in three months This is probably the worst outbreak that has been experienced, as an eighth part of the population have succumbed and the rate of mortality of the worst week would, if it had continued, have wiped out the whole population in less than a twelvemonth.

The plague mortality throughout India last week was as follows: Bombay Presidency, 9163 deaths; Bombay city, 91; Bengal, 46; Calcutta, 27; Madras Presidency, 127; Punjab, 211; Berar, 794; Central India, 1899; Central Provinces, 404; United Provinces, 80; Hyderabad State, 940; Mysore State, 673; and Kashmir, 7. The disease is increasing in Bombay city but slumbers in Calcutta. A recrudescence is evident in Mysore city and the Government has decided to spend about £20,000 in sweeping away some of the congested slums and in creating open spaces.

Oct. 9th.

LONDON TEMPERANCE HOSPITAL.—A large company assembled at the London Temperance Hospital, Hampstead-road, N.W., on Oct. 28th, when the Right Hon. the Lord Mayor and the Sheriffs of the City of London attended to inaugurate the scheme for rebuilding the out-patients' department. Alderman Sir T. Vezey Strong, in presenting an address of welcome to the Lord Mayor, said that the hospital had been in existence over 30 years and had so grown that it had become absolutely essential that the present building should be enlarged. While the distinctive principle of the institution was the treatment of disease without the use of alcohol, the medical officers had full liberty of action, the only stipulation being that when alcohol was prescribed the fact should be notified in a book kept for the purpose and its effect upon the patient set forth. During the existence of the hospital something like 300,000 in-patients suffering from every conceivable malady had passed through the wards and had been successfully treated, the rate of mortality comparing favourably with that of any of the general hospitals, and yet it had only been found necessary to prescribe alcohol in something less than 2 per 1000 of the cases treated. The new building scheme would entail an expenditure of about £10,000 and they appealed to the public to help them to carry on this beneficent work. The Lord Mayor, in replying, said that the London Temperance Hospital had amply justified its existence. The statistics which the chairman had given showed conclusively that alcohol was by no means a necessity in medical treatment and if they could treat disease without that fell enemy of the human race, which they as magistrates knew only too well was the cause of a great deal of the crime which prevailed in this nation, then they were doing indeed a most excellent and noble work. He was surprised that they confined themselves to a paltry £10,000 and certainly that sum should be readily forthcoming. He congratulated them on having secured the approval of King Edward's Hospital Fund which meant that the managers of that fund, after having gone carefully into the matter, were satisfied that the hospital was worthy of support. Dr. Dawson Burns, Sir W. J. Collins, and the Archdeacon of Westminster also spoke and the proceedings then terminated.

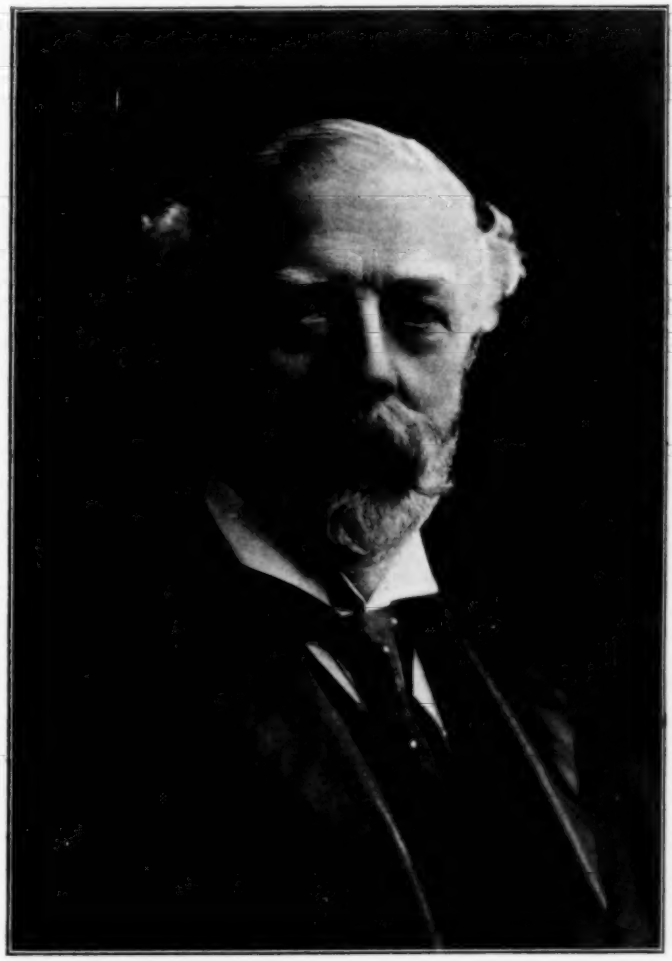
Obituary.

SIR GEORGE FREDERICK DUFFEY, M.D. DUB., F.R.C.P. IREL.

SIR GEORGE FREDERICK DUFFEY, ex-President of the Royal College of Physicians of Ireland, died after a long illness at his residence in Fitzwilliam-place, Dublin, on Oct. 13th. He was a graduate in Arts and in Medicine of the University of Dublin, in the medical school of which he had as an undergraduate obtained the medical scholarship of his year. Taking the degree of M.B. in 1864, he entered the Army Medical Service in 1867 as assistant-surgeon in the 24th Regiment and after nine years' service resigned his commission to settle in Dublin. In 1871 he proceeded to the degree of M.D. In 1876 he was appointed physician to Mercer's Hospital, which position he filled until 1882, when he was elected physician to the Royal City of Dublin Hospital and lecturer on materia medica to the Carmichael College of Medicine and Surgery. After the amalgamation of that College with the Ledwich School of Medicine and the School of Surgery of the Royal College of Surgeons in Ireland he was appointed professor of materia medica and pharmacy to the combined schools. In 1873 he became Fellow of the Royal College of Physicians and in 1896 was appointed its President. In the summer of 1897 he was still occupying the presidential chair and when in this year various honours were bestowed in connexion with the celebration of the diamond jubilee of Her late Majesty Queen Victoria Dr. Duffey received the honour of knighthood. During his brilliant and industrious career he filled many offices and appointments. He was examiner in materia medica in the Queen's University before its dissolution, extern examiner in the Institute of Medicine in the University of Dublin, inspector of examinations for the General Medical Council, and visitor for His Majesty's Privy Council in Ireland. Sir George Duffey had literary tastes and contributed many papers to the medical journals, the first being a valuable account of Mediterranean fever as observed by himself during his residence at Malta. He founded and managed the *Irish Hospitals Gazette*, a small journal which ultimately became merged in the *Dublin Journal of Medical Science*. He was also editor and part author of "Griffith's Materia Medica and Pharmacy" and author of "Suggestions for a Plan of Taking Notes of Medical Cases," a work which reached a second edition in 1890. In 1871 he married Agnes, daughter of the late John Cameron of Dublin and sister of Sir Charles Cameron, Bart., who represented Glasgow in Parliament for many years. His family consisted of two sons and three daughters. Some years ago his elder son, Lieutenant George Duffey, died from yellow fever while serving with his regiment in the West Indies. His younger son, Dr. Arthur Cameron Duffey, is a lieutenant in the Royal Army Medical Corps and in 1899 acted as special commissioner to the United States on behalf of the Cancer Research Society. Sir George Duffey was an exceedingly popular and useful member of the medical profession in Dublin and a most regular and diligent supporter of many scientific societies. At the last meeting of the governors of the Royal City of Dublin Hospital he was appointed consulting physician to that institution, while a motion was passed expressing the regret of the governors and members of the staff on account of his enforced retirement from the duties of visiting physician. His death at the comparatively early age of 60 years has left a gap in the ranks of his profession which will not soon be filled. The attendance at the funeral, which took place on Oct. 16th, was, as might have been expected, very large and representative.

At the annual general meeting of the Royal Academy of Medicine in Ireland the following motion was passed:—

That the Fellows of the Royal Academy of Medicine in Ireland assembled at this annual general meeting wish to record their regret and sorrow at the death of Sir George F. Duffey, an original Fellow of the Academy and one of the trustees of its funds. Sir George was one of the most steadfast and faithful supporters of the Academy. Year after year he submitted to one or other of the sections communications of great scientific, clinical, or pathological interest and value and on all occasions he shed lustre upon the Fellowship of the Academy by the high standard of professional honour which he set before him and up to which he consistently lived. The Fellows of the Academy also desire to convey to Lady Duffey, Dr. Arthur Cameron Duffey, and the other members of the family of their friend and colleague an expression of sympathy with them in their bereavement and sorrow.



SIR GEORGE FREDERICK DUFFEY, M.D., DUBLIN.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The University and Vivisection.

MASON COLLEGE never possessed a licence for purposes of vivisection. The late Mr. Lawson Tait, who though himself a vivisector in his earlier days, as the recently published letters of Charles Darwin have shown, afterwards postured as one of its opponents and was for a number of years one of the trustees of the College and there were in the city other active opponents of scientific research of sufficient influence to make it inadvisable for the College in its youthful days to court the agitation which it was thought would have been directed against it had any steps in the direction indicated been taken. There has, however, for long been a feeling on the part of all connected with the institution that the time had come when the reproach should be taken away from the College and when it became a university it was obvious that no long postponement of this event could take place. As a matter of fact, the University applied for, and obtained, a licence during this summer, a fact which it would seem has only just come, and incorrectly come, to the ears of the anti-vivisectionists, since they have commenced an agitation the object of which is to "protest against a licence being granted to the authorities of the Birmingham University of a laboratory for vivisectional purposes." The papers have been flooded with the usual style of letters in which abusiveness and ignorance are equally noticeable. A striking contrast to most of these effusions has been a letter from a local practitioner, Dr. F. J. V. Hall, who says that when himself a student he witnessed vivisections but never anything which could be described as cruelty and adds in reply to a letter from the chairman of the National Canine Defence League, "If any one of the statements he has made—and professedly from knowledge—were true, I would back the students to lynch the operator before he had time to torture the animal." Needless to say, this direct testimony has made no impression on the anti-vivisectionists but the most encouraging sign of the times in connexion with the present agitation is the fact that it has not succeeded in securing the support of a single person of any local importance. At the meeting held on Oct. 27th to protest against the giving of the licence there was not one person on the platform of any influence in the city and the principal speakers were the well-known Mr. Somerville Wood and Dr. George H. Brand, a practitioner in Northampton. The meeting was the most eloquent testimony to the fact that the common-sense of Birmingham is ranged on the side of the University. Beyond this fact the most interesting point in connexion with the meeting was the reading of a letter from the Right Hon. Joseph Chamberlain, Chancellor of the University, addressed to the secretary of the Anti-vivisection Society in Birmingham:—

> MADAM,—I beg to acknowledge the receipt of your letter of the 19th inst. and to say that I am most certainly opposed to the torture of animals, but that I entirely approve of the application of the authorities of the University of Birmingham for a licence to promote scientific research. I think it is a cruel libel upon men like Sir Oliver Lodge, Dr. Windle, and others to attribute to them the possibility of any act of cruelty. I shall be obliged if you will read this letter to the meeting which you propose to hold.
>
> I am, Madam, yours obediently,
>
> J. CHAMBERLAIN.

On Oct. 31st an account was published in one of the papers of an interview which the reporter had had with the Dean of the Medical Faculty of the University in which the reasons for obtaining a licence and the limitations placed thereon were set forth. It is to be hoped that this will settle any doubts which may have arisen in the minds of any well-meaning though ill-informed persons, though it is too much to expect that any effect will be produced by it on the anti-vivisectionist party.

The Medical Mission.

The annual meeting of this society has recently been held in the new mission hall in Floodgate-street, the Lord Mayor being in the chair. His lordship after expressing the interest which he had taken in the society since he settled in Birmingham said that the record of 120,473 cases dealt with, involving over half a million of attendances, was one of which any mission might well be proud. He drew attention to the fact that the annual subscription list was only £500 and that there was a deficiency amounting to £271 which he hoped would soon be wiped off and its recurrence rendered impossible by larger assistance being forthcoming. Mr H. Bagster Wilson, the medical superintendent, reported on the work accomplished by the mission not only on the medical but also on the religious and social side. The religious services were appreciated and much success attended the mothers' meetings, the sewing class, the Saturday afternoon and evening socials, the youths' meetings, and the various Sunday gatherings.

Orthopædic and Spinal Hospital.

The eighty-sixth annual meeting of this charity has recently been held, also under the presidency of the Lord Mayor. During the past year there was a diminution in the number of in-patients owing to the fact that the wards had to be closed for some time on account of an outbreak of scarlet fever. After thorough disinfection under the supervision of the health committee these have again been opened and are in full work. A deficiency of nearly £700 on the year's working was reported. The Lord Mayor suggested that as the instrument account amounted to something over £700 this particular part of the work should be made a separate fund, as he was sure that a number of their subscribers would gladly contribute additional sums for that special object.

Staffordshire Police and Attempted Suicides.

A singular order recently issued by the chief constable of Staffordshire to the police under his control seems likely to cause considerable difficulty in connexion with cases of attempted suicide brought under the notice of the police in Handsworth, a suburb of the city, with which it is absolutely continuous, though technically outside its boundary and actually in Staffordshire. This circular is as follows: "Any person attempting to commit suicide must not be taken to the General Hospital by the police, as the hospital authorities decline to receive cases brought by the police unless arrangements are made for watching them. If the relatives or friends are prepared to pay the hospital authorities for watching the patient there need be no difficulty, but friends who undertake to pay must accompany the patient to the hospital to make the necessary arrangements, as the police cannot undertake any responsibility in the matter, the patient not being a prisoner. In other cases where no one is prepared to pay for watching the relieving officer must be communicated with, and the patient must be taken to the workhouse unless arrangements can be made for medical attendance and watching in the patient's own house." The Birmingham police have an invariable practice and that is that the officer who takes a would-be suicide to the hospital remains with him until he is relieved by another constable. As the Staffordshire police have refused to conform to this custom the authorities of the hospital have been involved in considerable expense in connexion with this class of case, since they have been obliged to engage two attendants for each patient, one for the day and one for the night. They do not think, in justice to their subscribers and to the public, that they ought to be called upon to defray these charges and, as Mr. Howard Collins, the house governor, points out, the hospital authorities are not prepared to make arrangements with the friends or relatives of such patients for the payment of watches, since, being a charity, the hospital never accepts any payment either from a patient or from his friends. The hospital committee has therefore had no alternative but to refuse such cases when brought by members of the Staffordshire police unless and until they agree to conform to the practice of the Birmingham police. In any case, it seems as if this order would be likely to lead to a very serious loss of time in connexion with the treatment of such cases, for if the patient has to be removed to the workhouse it must be remembered that the relieving officer has a very large district and it might well happen that a considerable time would elapse before he could be found and the necessary order for removal obtained.

Hospital Saturday Fund.

Those responsible for the collection of this fund have not had the satisfaction of congratulating themselves upon raising the £20 000 which has long been the goal of their ambition, though they have made considerable strides in that direction; but in spite of this fact they have handed over their usual contribution of £10,000 to the medical charities of the city, the sum being divided in precisely the same manner as last year.

Guild of St. Luke.

A branch of this guild has recently been formed for the city and district and Dr. Milner M. Moore of Coventry has

been appointed Master. It is intended apparently to include dentists amongst its membership, since the first honorary secretary belongs to that profession. The first annual meeting has recently been held at Queen's College but so far as the newspaper reports show does not appear to have been attended by many members of the medical profession.

Nov. 3rd.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Salicylic Acid in Jam.

AN interesting case was heard on Oct. 19th at the Knutsford quarter sessions when a Stockport grocer appealed against a conviction for selling a pound pot of jam which was not of the nature, substance, and quality demanded. It was shown by Mr. William Thompson, public analyst of the borough of Stockport, that the pot of gooseberry and raspberry jam contained 2·6 grains of salicylic acid to the pound. It contained 7·7 per cent. of cane sugar, 52·4 per cent. of invert sugar, 3·6 per cent. of other sugars, 32·9 per cent. of water, and 3·4 per cent. of insoluble matter from fruit. He analysed another sample of jam which contained no salicylic acid and it showed 73·1 grains of sugar against 23·3 grains of water, while the sample with salicylic acid contained 63·7 grains of sugar and 32·9 grains of water. The addition of the acid therefore enabled the jam to take up about 9 per cent. additional water. Mr. Thompson said that salicylic acid was not necessary for the making or preservation of jam. Professor S. Delépine agreed with this statement and said that if there were too much water in jam something else than sugar was required to counteract it. "Salicylic acid was a powerful poison and the continuous taking of minute doses would be injurious to children and weak persons." Several representatives of jam-making firms gave evidence that they had used salicylic acid for various periods up to 25 years. Other makers gave similar evidence but admitted that since the Parliamentary inquiry they had reduced the quantity of the acid to two grains, or 0·16 grain per pound. Mr. Herbert Davies, analytical chemist, Liverpool, Dr. Thomas R. Bradshaw, and Dr. E. Rayner of Stockport considered that such a small quantity as that mentioned would not be deleterious but rather an advantage. Sir Horatio Lloyd, in giving judgment, said that the article supplied did not comply with the terms of the statute. And as to its being to the prejudice of the purchaser, they were more or less influenced by the fact that in working-class districts it was the staple food of the children and even in small doses frequently repeated they could not but feel that this would be injurious to them. The decision of the magistrates was confirmed with costs. The defendant's counsel applied for a case to be stated.

Life-Saving at Manchester Baths.

Manchester is not the place where one would expect much interest to be taken in swimming but a good deal is done to encourage the art at the public baths. On Oct. 27th an interesting series of examinations by the Life-Saving Society took place at the Cheetham baths. There was a medical examination in the theory of circulation, respiration, and resuscitation taken charge of by Dr. Ashworth. The land drills in rescue and release included the Silvester, Howard, and Marshall Hall methods of resuscitation. "The water drills were release and rescue four methods, the drowning subject to be carried 20 yards by each method, 100 yards breast stroke, 50 yards back stroke, and object diving." Out of 33 candidates 32 were successful. The classes for instruction are free to all citizens over 16 years of age. This is a municipal enterprise highly to be commended. How far it is taken up elsewhere I do not know, but as it is said that the deaths from drowning round our coasts and in the fresh waters of the United Kingdom alone every year are between 6000 and 7000 it is very desirable that the art of swimming and the technique of life-saving should be more widely known and practised. The difficulty and danger involved in the attempt of a mere swimmer to save the life of a drowning person are well known and if, as it is stated, a swimmer can in the course of ten or 12 lessons become so proficient as to give valuable aid in saving life without risk or danger to himself this part of the work of the baths committee may be cordially approved.

St. Mary's Hospital.

The building of the new hospital for women in Oxford-street is practically complete and it is expected to be ready for patients about the end of the year. £25,000, however, are required to defray the cost and one of the last acts of Bishop Moorhouse while he was still Bishop of Manchester was to preside at the annual meeting on Oct. 28th and to make an eloquent appeal for increased support. The medical charities of Manchester are largely made use of by those living in a wide area from which few subscriptions are received and the severe words of the bishop are quite justifiable. "It seems to me, I must confess," he said, "an anomalous, and I will even say a scandalous, state of things that no fewer than 100 great towns in the vicinity of Manchester are receiving valuable assistance from this institution and return no annual subscriptions." The burning words with which his appeal was enforced ought surely to rouse the slumbering philanthropy of "the 100 great towns in the vicinity of Manchester."

The Salford Royal Hospital.

The annual meeting of the friends of the Salford Hospital was held on Oct. 29th, under the presidency of the Mayor, Alderman Stephens. As is so often the case, the report told of increased work, greater calls on the institution, and a deficiency for the year of nearly £2000. The annual subscriptions only amount to £1000 which the chairman of the board considered was not creditable for a population of from 220,000 to 230,000. Dr. J. Dixon Mann read the medical report which stated that "the record number of patients treated during the past year afforded additional evidence of the need for enlarging the hospital." This seems the universal cry—more calls on the charity, absolute need for extension, insufficient subscriptions, in debt, but must enlarge, and so on. How long can it go on? Is it absolutely necessary? There is a large section of the population of our towns obtaining the help of hospitals and looking to it as a right, who might, and ought to, pay something for the treatment and care they obtain but for whom "self-help" has no charms. The whole question of hospital management and the equitable treatment of the private practitioner requires consideration.

Victoria University and the General Medical Council.

The annual meeting of convocation of the Victoria University of Manchester was held on Oct. 28th at the Owens College. Dr. P. McDougall proposed a motion in favour of the election of the representative of the University on the General Medical Council by the medical graduates who are also members of convocation. This was seconded by Dr. John Brown, and supported by Dr. Sinclair who made, as reported, a characteristic speech. He is stated to have said that the General Medical Council was unfit for the duties which it had to perform; that the Direct Representatives on the Council were like Labour Members in Parliament, they represented the lowest interests from the narrowest point of view; and that the medical practitioners throughout the country had no common interests except their own. "The ordinary medical practitioner was not an educated man and liked to talk about the learned professions, whilst as a rule he could not spell. Graduates of a university would have some common object." One could almost imagine that Dr. Sinclair may have been unfortunate as to his associates. After some further discussion an amended motion was passed:—

That in the opinion of convocation it is desirable that the representative of the Victoria University of Manchester upon the General Medical Council should be nominated for election by convocation by the medical graduates who are also members of convocation.

Poor-Law Cottage Homes.

The cottages homes at Styal were built by the Chorlton board of guardians about five years ago at a cost of £60,000 and with a receiving home provided accommodation for 308 children. On Oct. 28th the Bishop of Chester opened an important extension. There are four blocks of buildings and eight semi-detached homes to accommodate 15 children each, a total of 120. The cost of the new portion, including furnishing &c., is £15,332. In the course of an interesting address the bishop spoke in commendation of the course adopted in bringing the children out into the country districts.

Cheshire Farmers and Anthrax.

Two farmers were summoned at the Eddisbury petty sessions on Oct. 26th for the non-notification of anthrax. A

bull belonging to one of them was taken ill and a veterinary surgeon said that the animal was suffering from acute pneumonia. The defendant, instead of sending for medicine, "stuck the bull and an assistant was afterwards found to be suffering from anthrax." He was taken to the Chester Infirmary and recovered. The carcass was sold and eight days after it was found that some of the purchasers' pigs were suffering from anthrax, whereupon the veterinary surgeon gave a certificate that the bull had suffered from the same disease. The magistrates decided not to convict but the chairman said that although the defendant might have been ignorant of the existence of anthrax he should have allowed the animal to remain under the care of the veterinary surgeon until its real condition was discovered. The case against the other defendant was withdrawn. The disease is so serious that it may be thought the defendants got off very easily. However, the magistrates requested that farmers would do their utmost in helping the authorities to prevent the spread of the disease, a result which does not seem improbable.

How Small-pox is Spread.

There have been about 30 cases of small-pox at Glossop nearly all traceable to one house. A young man who worked at Hebden Bridge went home to Glossop ill with small pox. When the sanitary inspector made inquiries at the house the father said that his wife and daughter had gone to Sheffield, although they were ill upstairs with the disease, evidently caught from the son. The magistrates pointed out that the epidemic had cost the corporation £300 and caused two deaths. The defendant was fined £4 14*s.*

Nov. 3rd.

WALES AND WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENTS.)

Herefordshire Medical Association.

THE annual meeting of the Herefordshire Medical Association was held at Hereford on Oct. 28th under the presidency of Dr. J. B. Fitzsimons. Dr. H. B. Pope of Kington was elected President for the ensuing year. An interesting account was given by Dr. Paul M. Chapman of an outbreak of cerebro-spinal meningitis among the occupants of a large school. The history of the association since its establishment in 1858 was narrated by the honorary secretary, Mr. Edgar F. Morris, who brought into prominence the activity displayed by the original members in the suppression of unqualified practice in the county.

University College of North Wales.

The half-yearly meeting of the governors of the University College of North Wales was held on Oct. 28th under the presidency of Lord Kenyon. It was reported that there was an increase in the number of students as compared with last year. The chairman stated that in all probability £5000 would be received from the trustees of the late Dr. Evan Thomas and the council had decided to allot that sum to the new building fund and to name the portion of the college which was thus built after the benefactor.

University College of South Wales.

The Cardiff town council has accepted the invitation of the University of Wales to attend in state the annual congregation on Nov. 14th and the laying of the foundation-stone of the new buildings in Cathays-park.

University College, Bristol.

The annual distribution of prizes in connexion with the faculty of medicine of University College, Bristol, took place on Oct. 30th, when Sir William Ramsay made the presentations to the successful students. Mr. P. J. Worsley, who presided, in welcoming Sir William Ramsay said that they knew him better as Principal Ramsay who had come to University College, Bristol, 22 years ago and had helped to establish for it the high position which the college had taken in scientific teaching. After the distribution Sir William Ramsay delivered an interesting address on the professional training of a medical student and in the evening he was the principal guest at the annual dinner of the Bristol Medical School.

Nov. 3rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

General Council of the University of Edinburgh.

THE statutory half-yearly meeting of this body was held in Edinburgh on Oct. 30th. The chair was occupied for the greater part of the meeting by Principal Sir William Turner. The matter of greatest interest which came before the council was the report of the business committee of the council on the draft ordinance dealing with the institution of degrees in veterinary medicine and surgery and regulations relative thereto. The ordinance says that "it is expedient that the University of Edinburgh, in order to improve and encourage higher veterinary education, should institute degrees in veterinary medicine and surgery and frame regulations for the same." In accordance with this view the University Court proceeds to institute the two degrees of Bachelor and of Doctor of veterinary medicine and surgery. The regulations for the examinations for these degrees are to be prescribed by the Senatus with the approval of the University Court and are to be administered by a committee which is to be composed of professors or lecturers in the University and of others conversant with the subjects of veterinary education. The ordinance then deals with the examinations, and first, as regards the preliminary examination, the subjects are English, Latin, elementary mathematics, and Greek, or French or German, and the extent of this examination is to be determined by the Senatus. Passing to professional education it is enacted that the course shall consist of not less than four academic years and the classes which must be taken are enumerated, and these classes, as to range, duration, and number of meetings, are also determined by the Senatus with the approval of the University Court. It is then enacted that attendance at the Royal Dick Veterinary College, Edinburgh, shall qualify, *pro tanto*, for admission to the University examinations for degrees, but the University Court shall, after consultation with the Senatus, have power to determine if attendance at other veterinary colleges shall be recognised. The University Court shall have power to determine the courses of instruction to be taken in the University and in the Royal Dick Veterinary College respectively, or in any other veterinary college. The matter of fees is then regulated and students who are studying with a view to graduation must enrol themselves at the University and pay the ordinary matriculation fee. Passing then to the professional examinations for the Bachelor's degree, it is to consist of four divisions. The first embraces chemistry, elementary physics, elementary botany, elementary zoology, and the anatomy of the bones and joints of domesticated animals; the second division embraces advanced anatomy, histology, physiology, stable management, shoeing, and manipulation of domesticated animals; the third division includes morbid anatomy, pathology, bacteriology, materia medica, pharmacy, pharmacology, therapeutics, toxicology, veterinary hygiene, and dietetics; and the fourth division embraces the principles and practice of veterinary medicine, surgery, and obstetrics, heredity and general principles of breeding, and meat inspection. Having passed these in the order specified by the ordinance the candidate before going on to graduation has to show that he has obtained a diploma qualifying for admission to the Register of Veterinary Surgeons. The fee for each examination is five guineas. For the Doctor's degree the candidate must be 25 years of age or upwards and have been engaged for at least three years in the further study or exercise of his profession; he must present a thesis or a published memoir or work; he shall also be examined practically in veterinary medicine and surgery and, in addition, in veterinary hygiene or pathology, or bacteriology; the fee is 15 guineas. This ordinance did not meet with the approval of the business committee of the General Council and in its name it was proposed to send back the ordinance to the University Court. The proposal was, however, defeated by a considerable majority at the meeting held on the above date. The business committee has thus been left in a somewhat awkward position.

Nov. 2nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

University of Dublin.

THE chair of chemistry recently vacant by the retirement of Dr. J. Emerson Reynolds has just been filled by the appointment of Mr. George Young of Bristol. Dr. E. Percival Wright, who has filled the chair of botany for a long period, is about to retire and there are many candidates for his position. In the School of Physic many important changes in the professorial staff have taken place within a comparatively short period. A note of these may interest readers of THE LANCET who are graduates in medicine of the University of Dublin and such are to be found all over the world. Professor D. J. Cunningham, the distinguished anatomist, has returned to the University of Edinburgh, his *alma mater*, and has been succeeded in Dublin as University professor of anatomy and chirurgery by Dr. Andrew Francis Dixon. Dr. J. M. Purser, for many years King's professor of institutes of medicine, was succeeded after his retirement by Dr. William H. Thompson, formerly professor of physiology in the Queen's College, Belfast. Professor George Fitzgerald, whose lamented death took place last year, although he did not lecture in the School of Physic was nevertheless well known to all medical graduates. He has been succeeded as Erasmus Smith professor of natural philosophy by Professor William E. Thrift, M.A., F.T.C.D.

The Irish University Question.

The principal question at present being discussed in Ireland is the suggested settlement of the difficult problem of Irish university education—a question which many years ago shipwrecked Mr. Gladstone and which the witty Lord Morris advised Mr. A. Balfour, when he came to Ireland as Chief Secretary, to leave alone. Rumour says that Mr. Wyndham is most anxious to try his hand at devising a scheme, and there is no doubt that he and Sir A. MacDonnell, his under secretary, are at present making overtures to the various bodies affected and are hearing their opinions on the matter. The scheme adumbrated by the Dublin Castle authorities is to create a great national university for Ireland which will include Trinity College, Dublin, Queen's College, Belfast, and a new fully endowed and equipped Roman Catholic College in Dublin. It is said in the public press that Trinity College was offered a grant of £10 000 a year if it would consent to the plan, the share for Belfast being an additional yearly grant of £15,000, while a sum of £45,000, it is reported, is to be given to the new Roman Catholic College. Each college is to be autonomous and is to have the power of conducting all the examinations for the degrees in the various faculties. The Provost and senior Fellows of Trinity College are opposed to the scheme on the ground that it would be injurious to the interests of higher education in Ireland and to those of Trinity College that there should be incorporated in the University of Dublin a Roman Catholic or other denominational college in which access to the teaching staff and governing body would depend, either in theory or in practice, not merely on literary and scientific attainments, but also on religious denomination. It is said that Trinity College would be most anxious to join with Belfast but not with a college of Roman Catholics ruled by Roman Catholics for Roman Catholics. Then in this scheme what is to become of Cork and Galway and of non-resident students who wish to obtain a degree and who, owing to the Royal University, have vested interests, and what is to be done with female students? There are many people who would gladly see some new scheme, either a modification of the Royal University or even a new plan altogether, if it could be worked out on purely academic lines with the power of conferring degrees on academic grounds alone and with none of the colleges associated in the University either directly or indirectly under ecclesiastical control. The question is a confessedly difficult one and I fear that Mr. Wyndham will no more be able to settle it than was Mr. Gladstone. The whole trend of public opinion is against sectarianism in university life except in Ireland and if Mr. Wyndham attempts a settlement on any basis except academic lines he will probably be defeated. At the meeting of the Senate of the Royal University on Oct. 29th the following motion was passed:—

That while we are satisfied that the Royal University of Ireland under its present constitution has done good work within the limits of the powers committed to it we are of opinion that the findings of the Royal Commission on University Education in Ireland must, unless followed by some measure of reform giving promise of permanency, react injuriously upon the University and through it upon the most vital educational interests of the country; and therefore we beg most earnestly to represent to the Government the urgent need of taking this question into their immediate consideration.

Poor-law Reform in Ireland.

At a sitting of the Poor-law Commission in Omagh on Oct. 29th Dr. E. C. Thompson, M.P., in giving evidence, said that there were too many workhouses in Ireland; for instance, in county Tyrone, instead of six, as at present, he thought three would do, those of Omagh, Strabane, and Dungannon. He thought the district hospitals should be made really efficient and they, with one efficient surgical hospital manned by a capable surgeon, would form a desirable system. Workhouse hospitals should be taken out of the workhouses altogether and the fever hospitals should be utilised. The hospitals should be removed from the care of guardians who, with the best intention, did not understand what a hospital really should be. There were, in his opinion, no proper nursing and no proper sanitary arrangements in Irish workhouses. They were houses for the poor, where they lingered until they died.

The Ulster Branch of the British Medical Association.

The autumn meeting of the Ulster Branch of the British Medical Association was held in the Guildhall, Londonderry, on Oct. 28th, when the retiring president, Professor T. Sinclair, was in the chair and introduced his successor, Mr. Thomas MacLaughlin, who delivered an interesting inaugural address dealing with the medical history of Londonderry. After the meeting those present—to the number of 70—were entertained by the Derry members of the branch to an excellent luncheon, at which the new president occupied the chair.

Irish Medical Association.

The council of the Irish Medical Association has just issued a circular to the senates and councils of the universities, medical colleges, and schools bringing under their notice the present deplorable condition of the Irish Poor-law medical service with the hope that those entrusted with the provision of medical education may be induced to exert their influence to improve and to reform the service in the interest of many of their present and future graduates and diplomates of medicine and surgery.

Will of the late Mr. Forster Green.

The will of the late Mr. Forster Green, one of the most philanthropic Ulstermen who ever lived, has just been made public. Among many other legacies he leaves £500 to the Samaritan Hospital, Belfast. During his widow's life he directs the surplus income of each year (if any) to be applied in assisting the Forster Green Hospital for Consumption and Chest Diseases and the Epileptic Hospital, Belfast. After her death the trustees are empowered to pay £10,000 to the Forster Green Hospital for Consumption and Chest Diseases for an endowment fund to extend the benefits of its treatment to those unable to contribute in full to their support while under treatment and £10,000 for building and endowing almshouses in Belfast or its vicinity for the respectable poor of Belfast or counties of Antrim and Down, under instructions fully set out in the codicil. Mr. Green died on Oct. 21st.

Nov. 3rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

French Surgical Congress.

THE annual French Congress of Surgery has just risen and, as usual, it has provided a considerable number of memoirs which can be read hereafter in the "Transactions" and of which abstracts are given in all the journals. The work of the Congress, however, has not, on the whole, been favourably received and there is no occasion to disguise the fact that these annual congresses are gradually declining. As evidence of this, it is sufficient to remark that there was always abundance of vacant space in the room where the meetings were held, its only occupants being provincial surgeons and some foreign surgeons, whilst the Paris surgeons for the most part were satisfied with entering their names as members and did not absent themselves from their usual occupations for the purpose of taking part in the proceedings. Some animated personal discussions took place

at the general meeting, M. Pozzi pressing so vigorously for the alteration of a by-law relative to the general secretary that the latter handed in his resignation. In the election of the president of the meeting to be held in 1905 there was an active contest from which M. Chauvel, a military surgeon, emerged victorious over his colleague M. Delorme. Next year there are to be three subjects of discussion instead of two as heretofore. It can hardly be expected that this slight modification will be sufficient to restore vitality to a moribund institution.

External Perforating Disease of the Stomach.

M. Hayem has communicated to the Academy of Medicine an account of a lesion of the wall of the stomach which escaped observation until it was recently discovered by him. It consists in a loss of substance which occurs not on the internal surface but on the subperitoneal aspect of the stomach and it proceeds from without inwards. The lesion passes through three successive phases. In the first of these one or more circular depressions are to be seen, made as if stamped with a seal, their margins being more or less elevated and the bottom more or less irregular or sometimes puckered. In the second stage the gastric wall becomes translucent at the place of the lesion, the mucous membrane forms a smooth bridge, and the cellular and muscular layers are greatly reduced in substance. In the third stage the lesion forms an ochre-coloured hollow on the internal surface, while on the peritoneal aspect it is convex, projecting like a hernia, and covered with a perigastric thickening. When the ulcer is fully developed there remains only a thin epidermoid layer of the mucous membrane. In its first stage the lesion is common enough but it has hitherto escaped description probably because it does not give rise to any symptoms. M. Hayem's discovery overthrows one of the theories admitted for the explanation of the classic form of ulcer—namely, that it depends on an excess of acidity in the gastric juice tending in some degree to erode the mucous membrane of the viscus. Ulcer of the stomach is, in fact, met with principally in patients who are the subjects of hyperchlorhydria. This explanation, however, is inapplicable for an ulcer commencing externally on the peritoneal surface, a phenomenon which can only be accounted for by disorder of tissue nutrition referable to the nervous system, just as in the case of perforating ulcer of the sole of the foot which is a result of disease of a branch of the sciatic nerve. The external ulcer is in every respect similar to the classic ulcer of the internal coat of the stomach, a feature which supports the opinion of those who see in the latter only the effect of nervous lesions accompanied by malnutrition of certain regions corresponding to the nerve branches in question. According to this view hyperacidity of the gastric juice would only act by promoting erosion of the imperfectly nourished tissues.

Extraction of a Bullet in Contact with the Left Auricle of the Heart.

At the meeting of the Society of Surgery held on Oct. 28th M. Tuffier showed a non-commissioned officer of Spahis, aged 24 years, who had received a pistol shot in the front of the chest at the attack on Figuig in March, 1903. He had been lying almost flat on his horse so that the direction of the bullet was from above downwards. Notwithstanding this wound he was able to remain on horseback for half an hour when he was overcome by extreme difficulty of breathing. After he was taken to the ambulance station a small wound was found on the left side of the sternum and on the same day he had slight haemoptysis and fits of dyspnœa. In the course of some days all this passed off and the patient returned to duty. Two months later he began to suffer from difficulty of breathing and attacks of dyspnœa, for which he was admitted into the hospital at Mustapha and was then sent to Paris. Here he came under the care of M. Tuffier who decided on operating after he had for a long time observed the inutility of various kinds of medical treatment for cardiac trouble. Radioscopy on several occasions showed the presence of the bullet and its intimate relation to the left auricle, all the movements of which it followed. After incision of the integuments and the intercostal space M. Tuffier found, by means of Contremoulin's needle, that the bullet was at a depth of five centimetres (two inches). He then resected the second costal cartilage, and the pleural sac being pushed inwards he could with his finger feel the bullet evidently attached to the auricle. It was on the surface of the auricle without being encapsuled and nothing further was required to be done in order to extract it, after which the symptoms disappeared.

Dwarfs.

At the meeting of the Academy of Medicine held on Oct. 20th M. Poncet presented an interesting memoir on the subject of dwarfs, together with a minute description of two examples—a brother and a sister whom he had observed on the banks of the river Ain. With respect to the relative proportion of parts their bodily conformation was perfect, unlike that of the individuals who appear in public exhibitions and are in reality the subjects of disease; they may, for instance, be achondroplasiacs—namely, children in whom the development of the bony cartilages has become arrested, frequently in consequence of hereditary syphilis. The dwarfs described by M. Poncet had, however, an irreproachable osseous development; they were small, but the proportions of all the parts were normal. M. Poncet considered them to be representatives of the pygmies, dwarf races which formerly lived in Europe and greatly excited the imagination of the ancients but have long since disappeared, it is not known how. These pygmies had a real existence and their traces can be followed in history as late as the tenth century. The stature of primitive man was probably small in comparison with the standards of to-day and this condition of dwarfism reappears from time to time by reversion to the type of remote ancestors.

Disposal of Tuberculous Sputum.

M. Barth recommends tuberculous patients to replace the handkerchief or the vessel in which they spit by pieces of paper about four inches square, such as might, for instance, be cut from a newspaper. A daily newspaper would yield 72 such pieces. After spitting in the piece of paper the patient ought to roll it into a ball and throw it into a receptacle kept for this purpose and from time to time emptied into the fire so that the sputa and paper are burned. A tin box might be used as the receptacle. This method would be practical and inexpensive. It would also have the great advantage of doing away with the use of spittoons by phthisical patients, for these spittoons encourage the spread of tuberculosis and are a source of danger to the person who has to clean them. The small tin boxes suggested by M. Barth would cost the Assistance Publique less than porcelain spittoons and they would not be so easily broken.

New Hospital Buildings.

In November last year the Paris municipal council decided that the Assistance Publique should borrow on its property a sum of 40,000,000 francs (£1,600,000) to be employed in the enlargement and reconstruction of hospitals. This loan has been sanctioned by the Chambers and a scheme of the work to be undertaken will shortly be submitted to the municipal council for its approval. Several members of the commission which in the council deals with questions relating to the Assistance Publique have already proceeded to Belgium and Holland on a visit of inspection to various hospitals. In Antwerp, under the guidance of M. Ambroise Rendu, they will visit the Sturvenberg Hospital of 350 beds; this hospital consists of a series of two-storey pavilions arranged round an administrative block. They will also visit a new hospital at Liège. Work will not be commenced on the Paris hospitals till next spring. A hospital to replace the Pitié will be built on the unoccupied site of the Salpêtrière and when it is completed the Pitié will be pulled down.

Nov. 3rd.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Medical Congresses.

NUMEROUS congresses were held throughout Germany during the university vacations, especially at the end of September. Among the more important of them mention may be made of the meetings of the German Association of Naturalists and Medical Men at Cassel, of the German Practitioners' Association at Cologne, of the German Public Health Association at Dresden, and of the Government medical officers at Leipsic.

German Association of Naturalists and Medical Men.

At the congress in Cassel the first address was delivered by Professor Ladenburg of Breslau on the Influence of

Natural Science on the Spirit of the Time. The learned professor in his speech, which eventually gave rise to a considerable amount of protest in the daily newspapers, expressed his antagonism to current views on the subject of the inspiration of the Bible, the immortality of the soul, and some other tenets of the Christian and Jewish faiths. In his opinion it would be a decided improvement if sound training in the principles of modern biology took the place of the religious instruction which forms a part of most educational systems. Professor Ziehen of Utrecht delivered an address on the Physiological Psychology of Affections and Sensations; it was, however, of purely theoretical interest. Dr. Alsberg of Cassel spoke on the Effect of Social Influences in bringing about the Degeneration of Certain Races. He said that highly cultured European nations showed obvious racial degeneration. The explanation was that when mankind was living in the state of nature the less resistant individuals perished in accordance with the laws of selection, but in the highly cultured nations the progress of hygiene and medical science contributed to preserve these individuals who in their turn produced descendants still weaker than themselves. The increase of town populations, and especially of factory workers, and the decrease of the rural population—a consequence of the growth of modern industrialism—must also be mentioned, as this class of the community very soon underwent degeneration in consequence of the unwholesome conditions of life in cities. The most terrible foe of humanity was alcoholism. The obvious symptoms of racial degeneration were especially the enormous increase of nervous and mental diseases and the inability of mothers to suckle their infants, the degeneration of the mammary glands being the result of the alcoholism of the progenitors. Professor Rieder of Munich spoke on the use of the Finsen light and the x rays as therapeutical agents. Blue light was said to be serviceable in mania and red light in melancholia. A beneficial action of red light was observed by Professor Finsen in small-pox, an observation in accordance with popular views in some countries, such as Roumania, Japan, and Tonkin where the patients were supplied with red coverlets. Red light also produced good effects in measles, scarlet fever, and erysipelas. Speaking of the Roentgen rays Professor Rieder mentioned different skin diseases, such as favus, ringworm, alopecia areata, and especially lupus, in which the Finsen treatment and the Roentgen rays gave excellent results. In Copenhagen 85 per cent. of the cases of lupus were cured by Professor Finsen, whereas in the Budapest hospital previously to the introduction of the treatment by means of light the proportion of recoveries was 7 per cent. only. In cancer of the skin this method of treatment had also a wide field of action. Lupus ought, he said, to be treated in the sanatoriums for consumptives. Professor Allan Macfadyen of London read a paper on Intracellular Toxins. By exposing bacteria to very low temperatures he was able to examine their intracellular plasma and he found that the intracellular plasma of the bacilli of enteric fever and of staphylococci was highly virulent, as guinea-pigs were killed by injections containing such plasma. Experiments on immunisation were made in monkeys, the result being that the serum of the animal had an immunising action against the bacilli of enteric fever as well as against the intracellular toxin. It has also been ascertained that the opinion that the toxic action of bacteria depended on toxic products of metabolism was erroneous, the toxic agent being in reality present within the intracellular substance of the bacteria themselves. Professor Sir William Ramsay of London read a paper on the Periodic System of the Chemical Elements. Professor Griesbach of Mülhausen read an address on the Hygiene of Schools in Germany. He insisted strongly on the medical supervision of schools by specially appointed medical men. A collective investigation has proved that 80 per cent. of headmasters acknowledged the desirability of medical control. The hygienic defects in the present system were obvious: shortsightedness, for instance, existed in the junior classes in proportions varying from 6 to 31 per cent. in different schools, whilst in the more advanced classes the proportions were from 52 to 83 per cent. From a hygienic point of view it was necessary to have a diminution of the number of school lessons which in Germany occupied from 36 to 40 hours a week and in France from 22 to 26 hours a week. It was also necessary to have a greater number of holidays. In conclusion, he made a reference to the instruction in hygiene given in several towns to schoolmasters and recommended that such instruction should be general throughout Germany. The address of Professor Behring on Tuberculosis has already been recorded in these columns.[1] The congress will meet next year at Breslau. Professor Chiari of Prague and Professor Winkel of Munich were elected presidents of the association.

German Practitioners' Association.

The Practitioners' Association (Deutscher Aerztetag) has held two meetings this year. An extraordinary meeting became necessary in the spring in consequence of the recent amendment of the statutory provisions relative to workmen's insurance and the ordinary autumn meeting took place at Cologne, Professor Loebker of Bochum being in the chair. The proceedings opened with a discussion on the proposed formation of an alliance between the association and the Leipziger Verband, which, as was explained in THE LANCET of Feb. 21st, 1903, p. 558, is a combination of medical men having for its object the upholding of the rights of the profession against the high-handed policy of the sick clubs. After a short debate the meeting unanimously sanctioned the proposed scheme of alliance. Another subject discussed by the association was the insurance of the members against sickness and accidents. The matter, after a rather long discussion, was referred to a special committee to be reported on at the next meeting. Owing to the overcrowding of the profession a motion was adopted to the effect that youths leaving school to enter on a university career should be warned against becoming students of medicine. The association finally again discussed the question of club practice and adopted a motion to the effect that the local branches of the association were bound to insist on the free-choice system being introduced in the sick clubs and that the members must abstain from taking any action which might be prejudicial to this result. Members holding appointments as medical officers to clubs with fixed salaries were therefore enjoined to resign their positions as soon as possible.

German Public Health Association.

The first business brought before the meeting of the German Public Health Association was the Prevention of Tuberculosis. Professor Gaffky of Giessen recommended the establishment of public laboratories for the examination of sputa, the compulsory notification of consumption, the isolation of patients in sanatoriums, the disinfection of dwellings free of charge to the householder, and other measures which have already been discussed at length in the different congresses on tuberculosis. Professor Dunbar of Hamburg read a paper on the Regulation of the Milk Trade. He drew attention to the fact that in Germany 150,000 children die every year from diseases caused by unwholesome milk. The control at present exercised by the police was insufficient. He recommended that persons engaged in the milk trade should be required to hold special licences and that these licences should be granted only with the sanction of a commission consisting of agriculturists, medical men, and veterinary surgeons. In the discussion it was argued that these proposals were too stringent and that they would tend to raise the price of milk. Dr. Ohlmüller of Berlin spoke on the Purification of Water by Ozone and Dr. Rumpelt of Dresden discussed questions connected with the Hygiene of Dwellings.

Meeting of Government Medical Officers.

The meeting of the Government medical officers at Leipsic discussed the lunacy laws which are different in the various countries of Germany. There was a general agreement as to the desirability of Imperial legislation to establish uniformity of the lunacy laws throughout the whole Empire. There was, on the other hand, great diversity of opinion with respect to the question of insane criminals, as some of the speakers wished them to be confined in special departments attached to prisons, whilst others held that they ought to be admitted to the general lunatic asylums under special control. Other papers read before the Congress were on the Use of Photography in Forensic Medicine, by Professor Strassmann, and on the Prophylaxis of Contagious Diseases in Schools, by Dr. Tjaden of Bremen.

Nov. 3rd.

[1] THE LANCET, Oct. 24th, 1903, p. 1199.

LITERARY INTELLIGENCE.—The address delivered before the Medical Society of Manchester on Oct. 7th by Dr. Charles J. Cullingworth, obstetric physician to St. Thomas's Hospital, on "Charles White, F.R.S., a Great Provincial Surgeon and Obstetrician of the Eighteenth Century," will shortly be published by Mr. Henry J. Glaisher of Wigmore-street, W.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen have passed the first examination of the Board in the subjects indicated:—

Chemistry.—Edgar Cecil Banks, Owens College, Manchester; Alfred William Bevis, St. Mary's Hospital; Maurice Frederic Bliss, London Hospital; Adolf Henry Coombs Dawes, University College, Bristol, and University College Hospital; William Deane and John Edwin Ellcome, St. Thomas's Hospital; James Butler Fairclough, Yorkshire College, Leeds, and Bradford Grammar School; Horace Bernard Farrant, Owens College, Manchester; Samuel Richard Harrison, London Hospital; Ernest Charles Holtom, St. Mary's Hospital; Alexander James, Kingswood School, Bath; Arthur Gordon Jeuner, University College, Liverpool; David William Jones, Guy's Hospital; Max Nurick, University College, Liverpool; Philip Spencer O'Bryen-Taylor, St. Mary's Hospital; Bertram Charles Noble O'Reilly, Percy Charles Raiment and Louis Michael Waldron, London Hospital; and Quintin Hume Richardson, Technical School, Plymouth.

Practical Pharmacy.—William Seaforth Alderson, Yorkshire College, Leeds; John Harold Burridge and Thomas Alexander Clarke, King's College Hospital; Thomas Wafer Byrne, University College, Liverpool; William George Cheatle, St. Mary's Hospital; Ashley Skeffington Daly and Austin Clarence Dixon, London Hospital; Walter Damms, University College, Sheffield; Emile Horace George Duncan, St. Bartholomew's Hospital; Percy Farrant, Westminster Hospital; Howard Graeme Gibson, Guy's Hospital; Philip Thomas Harper and Augustine Henry Hudson, St. Thomas's Hospital; Arthur Hawkins, Cambridge University and St. Bartholomew's Hospital; Rowland Wilbraham Hill, Owens College, Manchester; Alexander James, Kingswood School, Bath; Harold Leach, Yorkshire College, Leeds; Raymond Gabriel Maglione, Owens College, Manchester; Otho Charles Henry Leopold Mole, Guy's Hospital, Durham and Cambridge Universities; Reginald Mugliston, William George O'Malley, John Sydney Pearson, Geoffrey Ratcliffe Plaister, London Hospital; Gerald Munn, Charles Melton Ockwell, John Edward Prentis, Guy's Hospital; Horace John D'Arcy Gerrard Price, Birmingham University; Frederick John Rees, St. Bartholomew's Hospital and Medical College, Calcutta; Sebastian Gilbert Scott, King's College Hospital; Arthur Bodley Scott, Henry William Skan, and Frederick Weber, St. Bartholomew's Hospital; George Stone and Reginald Thane Taylor, London Hospital; Geoffrey Wacher, Guy's Hospital; and Arthur Whitehead-Smith, St. Thomas's Hospital.

Elementary Biology.—Alfred William Bevis, St. Mary's Hospital; Richard Julius Cyriax, Birkbeck Institute; and Michael Wellwood Morrison, University College, Bristol.

UNIVERSITY OF CAMBRIDGE.—The following medical and surgical degrees were conferred on Oct. 29th:—

Bachelor of Medicine and Bachelor of Surgery.—G. G. Ellett, St. Catharine's; and J. R. Bentley, Emmanuel.

Bachelor of Medicine.—E. Weatherhead, St. John's; H. B. McCaskie, Caius; R. Butterworth, Christ's; and J. M. Stenhouse, Sidney Sussex.

FOREIGN UNIVERSITY INTELLIGENCE.—*Amsterdam:* Dr. P. Ruitinga has been appointed Professor of Medicine in succession to the late Dr. Stokvis.—*Berlin:* Dr. Paul Schultz has been appointed Principal of the Department of Special Physiology in the Physiological Institute in succession to Dr. Immanuel Munk whose assistant he has been for many years.—*Innsbruck:* Dr. Hermann Schloffer has been appointed to the chair of Surgery.—*St. Petersburg (Medico-Chirurgical Military Academy):* Dr. Dêlitsyn of Kharkoff has been appointed Professor of Operative Medicine and Surgical Anatomy.—*Turin:* Dr. Aldo Fabris has been recognised as *privat-docent* of Pathological Anatomy, Dr. Luigi Ferrio as *privat-docent* of Internal Pathology, Dr. G. B. Boccasso and Dr. Antonio Perassi as *privat docentes* of Surgery, and Dr. Giovanni Petella as *privat-docent* of Ophthalmology.—*Würzburg:* Dr. Max Borst has been promoted to an extraordinary Professorship of Pathological Anatomy.—*Zürich:* Dr. C. Mayer-Wirz has been recognised as *privat-docent* of Midwifery and Gynæcology.

CHILDREN'S HAPPY EVENINGS ASSOCIATION.—The Countess of Jersey has issued an appeal on behalf of this association, of which the Princess of Wales is the President, for help from young men who are willing to give an hour or two once a week or once a fortnight to supervise boys' games. The Children's Happy Evenings Association has for its object the provision of recreative evenings for children attending public elementary schools and during the 13 years that the association has been in existence a great deal of good work has been done by affording healthy and educational recreation for the poorer children of London and the provinces. Not only this but the children are thus prevented to a great extent from spending their evenings in play in the pernicious environment of the streets. Offers of personal help should be sent to Mrs. Bland-Sutton, 48, Queen Anne-street, W., and contributions to Mr. William Grantham, the honorary treasurer, 17, Cadogan-place, W.

THE LATE MR H. G. CROLY.—One of the resolutions passed at the annual meeting of the Royal Academy of Medicine in Ireland was as follows: "That the President and Fellows of the Royal Academy of Medicine in Ireland desire to record their sense of the loss which hospital work has sustained by the death of Mr. Henry Gray Croly, who has been for so many years an active teacher of surgery and a prominent Fellow in this Academy. The Academy desires to express condolence with the members of his family."

THE LONDON HOSPITAL.—On Nov. 2nd the Lord Mayor and Lady Mayoress unveiled the tablets over the beds in the Royal Ward which was founded in honour of the visit of the King and Queen to the hospital during last summer. The Hon. Sydney Holland, chairman of the hospital, in opening the proceedings referred to the indefatigable work of the Lord Mayor during his term of office on behalf of the hospitals. In his reply the Lord Mayor said that no more lasting memorial could be made to the memory of man or woman than was afforded by the endowment of a hospital bed. The credit for the success of the appeal which had been made to the public was due to the King and Queen. It was an easy thing to leave money but to give with a living hand involved some sacrifice. The donors would, however, see the benefits of their acts during their lifetime.

THE REGISTRATION OF PLUMBERS.—At a meeting held recently at the town-hall, Chiswick, under the presidency of Mr. Joseph Smith, chairman of the Chiswick district council, for the purpose of forming a Chiswick health society, the following motion, moved by Mr. F. C. Dodsworth, medical officer of health of Chiswick, was carried unanimously:—

That this meeting of inhabitants of Chiswick, having heard of the admirable work that is being done in various parts of the country by local health societies, is of opinion that the time is now ripe for the formation of such a society in Chiswick to promote in every way possible the health of the neighbourhood by diffusing a knowledge of hygiene and sanitation among all classes of the population and by aiding the efforts of the public authorities in this direction. That this meeting also wishes to record its approval of the efforts of the Worshipful Company of Plumbers to advance the training and registration of plumbers, thereby safeguarding the public health from the many diseases due to defective plumbing and preventing waste in the water-supply and calls upon the Government to afford the necessary facilities for passing the Plumbers' Registration Bill through Parliament during the forthcoming session.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following is a list of awards gained during the winter session, 1902–03, and summer session, 1903:—Winter session, 1902–03: Stoney Memorial gold medal in anatomy: R. Bury. Descriptive anatomy: Junior: First prize (£2) and medal, D. Adams; second prize (£1) and certificate, W. H. Carden. Senior: First prize (£2) and medal, W. St. L. Moorhead; second prize (£1) and certificate, L. Lucas. Practical anatomy: First year: First prize (£2) and medal, P. G. M. Elvery; second prize (£1) and certificate, J. Murray. Second year: First prize (£2) and medal, T. A. Burke; second prize (£1) and certificate, J. B. Kelly. Practice of medicine: First prize (£2) and medal, J. Parker; second prize (£1) and certificate, A. N. Crawford. Surgery: First prize (£2) and medal, C. A. Cusack. Midwifery: First prize (£2) and medal, R. Bury; second prize (£1) and certificate, A. C. Adams. Physiology: First prize (£2) and medal, J. Prendiville; second prize (£1) and certificate, C. W. Greene. Chemistry: First prize (£2) and medal, D. Adams; second prize (£1) and certificate, W. H. Carden. Pathology: First prize (£2) and medal, J. S. Sheill; second prize (£1) and certificate, W. B. Loughnan. Physics: First prize (£2) and medal, D. Adams; second prize (£1) and certificate, W. H. Carden. Summer session, 1903: Barker anatomical prize (£31 10s): A. N. Crawford. Mayne scholarship (£15): R. W. Burkitt. Carmichael scholarship (£15): I. Allaun. Gold and silver medals in operative surgery: gold medal, A. N. Crawford; silver medal, F. J. Cairns; honour certificate, C. A. Cusack. Practical histology: First prize (£2) and medal, W. St. L. Moorhead; second prize (£1) and certificate, S. H. Massey. Practical chemistry: First prize (£2) and medal, D. P. Clement; second prize (£1) and certificate, H. C. Carden. Public health and forensic medicine: First prize (£2) and medal, Miss C. O'Meara: second

prize (£1) and certificate, T. W. Browne. Materia medica: First prize (£2) and medal, R. M. Brontè; second prize (£1) and certificate, A. J. Faulker. Biology: First prize (£2) and medal, F. M. Hewson; second prize (£1) and certificate, W. A. Ryan.

BOOKS, ETC., RECEIVED.

ALLEN, GEORGE, 156, Charing-cross-road, W.C.
Horses, Guns, and Dogs. By J. Otho Paget, George A. B. Dewar, A. B. Portman, and A. Innes Shand. Price 6s.

BEMROSE AND SONS, LIMITED, 4, Snow-hill, E.C.
Beautiful Biskra. "The Queen of the Desert." By C. Howard Tripp. Price 1s. net.

GLAISHER, HENRY J., 57, Wigmore-street, Cavendish-square, W.
Ethyl Chloride in Surgical and Dental Practice. With an Account of a simple Device for use with ordinary Gas and Ether Apparatus. By A. de Prenderville, M.R.C.S., Anæsthetist to the London Throat Hospital, W. Price 1s. net.

GOOD HEALTH PUBLISHING COMPANY, Battle Creek, Mich., U.S.A.
The Living Temple. By J. H. Kellogg. Price 5s. 6d.

NISBET, JAMES AND CO., LIMITED, 21, Berners-street, W.
Divine Hygiene. Sanitary Science and Sanitarians of the Sacred Scriptures and Mosaic Code. By Alexander Rattray, M.D. Edin. In two volumes. Price 32s.

OLIVER AND BOYD, Edinburgh.
The Transactions of the Edinburgh Obstetrical Society. Vol. XXVIII. Session 1902-1903.

REDMAN, LIMITED, 139, Shaftesbury-avenue, Cambridge-circus, W.C.
Portfolio of Dermochromes. By Professor Jacobi of Freiburg im Breisgau. English Adaptation of Text by J. J. Pringle, M.B., F.R.C.P., Physician to the Department for Diseases of the Skin at the Middlesex Hospital, London. Part 3. Price £3 3s. net.

SPRINGER, JULIUS, Monbijouplatz, 3, Berlin.
Lehrbuch der Gynäkologie. Von MAX RUNGE, Ord. Professor der Geburtshulfe und Gynäkologie und Direktor der Universitäts-Frauenklinik zu Göttingen. Zweite Auflage. Preis, gebunden, M.10.

STURER'S, A., VERLAG (C. Kabitzsch), Würzburg.
Beitrage zur Klinik der Tuberkulose. Herausgegeben von Dr. Ludolph Brauer, A.O. Professor an der Universitat Heidelberg. Band I. Price M.3.50.

VOGEL, F. C. W., Leipzig.
Archiv für Experimentelle Pathologie und Pharmakologie. Redigirt von Dr. B. Naunyn und Dr. O. Schmiedeberg. Band 50. Heft. 3 and 4. Preis eines Bandes 16 Mark.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, such information for gratuitous publication.*

ANDERSON, KENNETH, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Banwell District by the Axbridge (Somerset) Board of Guardians.

BROWNE, J. J., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Act for the Wigton District of the county of Cumberland.

CHOLMELEY, MOUNTAGU ADYE, L.R.C.P. Lond., M.R.C.S., has been appointed Surgeon to the "Court One and All," Ancient Order of Foresters, Truro.

FARNECOMBE, W. T., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Act for the Selly Oak District of the county of Worcester.

GROGAN, GERRARD A., M.B., B.A. R.U.I., has been appointed Second Assistant Medical Officer to the Cambridgeshire County Council Asylum, Wilbourne, Cambridge.

HAMILTON, ARTHUR F., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the West London Hospital.

HESLOP, A. H., M.B., B.S. Durh., has been appointed Second Assistant Medical Officer of the City Asylum, Gosforth, Newcastle-on-Tyne.

LYONS, ALEXANDER, M.R.C.P., L.R.C.S. Edin., has been appointed House Surgeon to the Royal Eye Hospital.

PENDERTHY, W., M.R.C.S., L.R.C.P. Lond., has been appointed Certifying Surgeon under the Factory Act for the Wiveliscombe District of the county of Somerset.

PICKARD, RANSOM, M.S., M.D. Lond., F.R.C.S., L.R.C.P. Lond., D.P.H. Cantab., has been appointed Honorary Surgeon to the West of England Eye Infirmary, Exeter.

TOSSWILL, LOUIS HENRY, B.A., M.B. Cantab., M.R.C.S., has been appointed Honorary Consulting Surgeon to the West of England Eye Infirmary, Exeter.

WILLOUGHBY, W. G., M.D. Lond., D.P.H. Cantab., has been appointed Medical Officer to the Education Authority, Eastbourne.

Vacancies.

For further information regarding each vacancy references should be made to the advertisement (see Index).

BIRMINGHAM AND MIDLAND HOSPITAL FOR SKIN AND URINARY DISEASES, John Bright-street, Birmingham.—Surgical Assistant for six months. Honorarium at rate of 52 guineas per annum.

BRIGHTON, HOVE, AND SUSSEX THROAT AND EAR HOSPITAL, Church-street, Queen's-road, Brighton.—Non-resident House Surgeon for six months, renewable. Salary at rate of £75 per annum.

CAMBERWELL PROVIDENT DISPENSARY.—Vacancy on Medical Staff.

CANCER HOSPITAL, Fulham-road.—Hon. Medical Radiographer. Honorarium £26 5s. annually.

CHARING CROSS HOSPITAL.—Assistant Anæsthetist. Salary £60 a year. Also Medical Registrar. Salary £40 a year, with lunch.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Surgeon to Out-patients.

GRIMSBY AND DISTRICT HOSPITAL.—Resident House Surgeon. Salary £40 per annum, with board, lodging, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—House Physician, unmarried, for six months. Salary £20, with board and residence. Also Clinical Pathologist and Bacteriologist, non-resident. Honorarium 50 guineas per annum.

INDIAN MEDICAL SERVICE, India Office.—Twenty Commissions.

LANCASHIRE INEBRIATES' REFORMATORIES, Langho, Whalley, Lancashire.—Director and Medical Officer, married. Salary £500 per annum, rising to £700, with residence, coal, light, and washing.

LIVERPOOL, CITY OF, INFECTIOUS DISEASES HOSPITAL.—Assistant Resident Medical Officer, unmarried. Salary £120 per annum, with board, washing, and lodging.

LONDON HOSPITAL MEDICAL COLLEGE (UNIVERSITY OF LONDON).—Demonstrator of Biology. Salary £75 per annum.

MANCHESTER ROYAL EYE HOSPITAL.—Junior House Surgeon. Salary £90 with residence, board, and washing.

MARGARET-STREET HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, 26, Margaret-street, Cavendish-square, W.—Pathologist.

MELBOURNE, NIVERSITY OF.—Chair of Physiology and Histology.

MOUNT VERNON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST.—Assistant Physician to Out-patients.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £160, rising to £180.

NEW HOSPITAL FOR WOMEN.—House Physician and House Surgeon (female).

NOTTINGHAM CITY ASYLUM.—Junior Assistant Medical Officer, unmarried. Salary £150 per annum, with apartments, board, and washing.

OCHIL HILLS SANATORIUM, Kinross-shire.—Bacteriologist and Junior Medical Officer. Salary £120, with board and laundry.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, London, W.—Surgeon to Out-patients. Also Pathologist and Registrar. Salary £50.

POPLAR UNION, South Poplar District.—Public Vaccinator.

QUEEN ADELAIDE'S DISPENSARY, Pollard-row, Bethnal Green-road, E.—Honorary Surgeon Dentist.

ROYAL FREE HOSPITAL, Gray's Inn-road, W.C.—Junior Obstetric Assistant (female) for six months. Board and lodging provided.

ST. ANN'S DISPENSARY, 217, St. Ann's-road, Tottenham.—Medical Officer. Also Dentist.

ST. MARK'S HOSPITAL FOR FISTULA AND OTHER DISEASES OF THE RECTUM, City-road, E.C.—House Surgeon. Salary £30 per annum, with board, lodging, and washing.

ST. PAUL'S HOSPITAL FOR SKIN AND GENITO-URINARY DISEASES, Red Lion-square, High Holborn, W.C.—Two Casualty Out-patient Surgeons.

SCARBOROUGH HOSPITAL AND DISPENSARY.—Resident Assistant House Surgeon. Salary £30 per annum.

SHEFFIELD ROYAL HOSPITAL.—House Surgeon, unmarried. Salary £120 per annum, with board, washing, and apartments.

SUSSEX COUNTY HOSPITAL, Brighton.—House Surgeon, unmarried. Salary £140 per annum, with board, washing, and residence.

TOTTENHAM HOSPITAL, London, N.—Casualty Officer for six months. Salary £40 per annum, with board, residence, and laundry.

WEST KENT GENERAL HOSPITAL, Maidstone.—Honorary Physician.

THE Chief Inspector of Factories, Home Office, S.W., gives notice of vacancies for Certifying Surgeons under the Factory Act at Weymouth, in the county of Dorset, and at Hinckley, in the county of Leicester.

Births, Marriages, and Deaths.

BIRTHS.

DOW.—On Oct. 28th, at Lewes, Sussex, the wife of William A. Dow, M.D., of a daughter.

GREY.—On Oct. 30th, at Roseland, Kingsbridge, Devon, the wife of Harry Grey, M.D. Edin., of a son.

SIMPSON.—On Nov. 1st, at Melville-street, Edinburgh, the wife of Dr. G. F. Barbour Simpson, of a daughter.

DEATHS.

LAWTON.—On Oct. 31st, at Poole, Dorset, Herbert Alfred Lawton, M.D., L.R.C.P., M.R.C.S., D.P.H., aged 52 years.

ORMROD.—On the 1st inst., at Hindley, Workington, Fray Ormrod, L.R.C.P., M.R.C.S., aged 60 years.

THORNBURN.—On Oct. 30th, at Low Moor, Bothel, John Edward Thornburn, L.R.C.P., L.M., M.R.C.S., Sunnyside, Cockermouth, aged 64 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Notes, Short Comments, and Answers to Correspondents.

A POINT UNDER THE VACCINATION ACTS.

To the Editors of THE LANCET.

SIRS,—Some months ago I vaccinated a child and subsequently inspected the arm and found it "good." The father of the child then informed me that he would bring the certificate for me to fill up, also saying that he would pay for the vaccination and other items, amounting to 14s. He has never called. I saw the vaccination officer last night who told me that the district medical officer had filled up the paper, so, of course, I do not now expect a visit from the father nor do I expect to get paid voluntarily. Now, Sirs, I should like to know if the district medical officer gets the vaccination fee, if the district medical officer is within his right in filling up the certificate. Does this meet with your approval? I may say that the parents have removed from their present address. Thanking you in anticipation,

I am, Sirs, yours faithfully,

Widegate-street, E.C., Oct. 30th, 1903. ISAAC GEORGE.

*** We fear that there may be in this case an attempt on the part of the parent to escape payment and perhaps he has discovered that the services of the public vaccinator were at his disposal gratuitously. We expect that the district medical officer referred to by our correspondent is also a public vaccinator and that such officer has acted under Section 12 of the Vaccination Act of 1871, which provides that "where it appears to the public vaccinator of any district upon personal examination of any child resident in such district who has not been successfully vaccinated by him, that such child has been successfully vaccinated, the public vaccinator may, on the request of the parent of such child, grant a certificate to that effect, and such certificate shall be transmitted and have the same effect as if it were a certificate of successful vaccination by the public vaccinator who gave the certificate." It has, however, to be noted that there is no statutory fee for this certificate and that the public vaccinator must make his own terms with the parent. The public vaccinator is not bound to comply with the request of the parent but it is not desirable except "for very strong reasons" that he should refuse. It appears to us that in the present case, if we rightly interpret our correspondent's letter, the public vaccinator, had he been aware of the facts, should have insisted that the parent should complete his contract with his private medical attendant. The section which really governs the present case is probably Section 7 of the Act of 1871, part of which enacts that every "medical practitioner as soon as he has ascertained that the operation has been successfully performed shall deliver to the parent causing the child to be vaccinated a certificate of successful vaccination, in the proper form and duly filled up and signed by him." Our correspondent will do well to think over all the facts of the case in the light of this section before he risks legal proceedings.—ED. L.

THE RÔLE OF SOAP.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Oct. 17th, p. 1106, I notice under the heading of "The Rôle of Soap" some remarks with regard to a current controversy.

I have read the correspondence in various periodicals and the remarks of some professional men with considerable interest, having made a life-long study of soap from the "chemical" as well as from the "personal" point of view, but I have never seen anyone referring to what has been the universal practice of the company of which I have the honour to be a director in preparing toilet soaps—viz., to finish the soap so that instead of containing any free alkali—either carbonated or hydrated—the soap contains a distinct, though small, proportion of free fatty or oily matter.

My theory has always been that it is the free alkali which reduces or abstracts the natural oil of the skin and that a soap absolutely free from this, while removing the dirt from the skin, leaves it still supple, or to use a mechanical expression lubricated, to a valuable extent.

I should be glad to hear the opinions of those who have made a study of the use of soaps on the skin as to whether my theory is correct or has been studied in any way.—I am, Sirs, yours faithfully,

S. GODFREY HALL, F.C.S.

Oct. 21st, 1903. (EDWARD COOK and CO., Limited.)

INFORMATION TO THE POLICE.

To the Editors of THE LANCET.

SIRS,—On finding the body of a baby the police of this district sent an officer to every medical practitioner asking if he had lately attended anyone who might be the mother. Should I, then, happening to have a case which I considered one of recent delivery, be right to tell about it? I am, Sirs, yours faithfully,

Nov. 2nd, 1903. £10,000 DAMAGES.

*** In the circumstances set out in our correspondent's letter there is nothing to demand, or indeed to justify, his giving information to the police as to any case under his charge which he may consider to be one of recent delivery. The police are bound to make inquiries when they believe crime to have been committed, but no one can be compelled to answer their questions and to make such inquiries of all the medical men in a district in order to get a clue is an unusual and a highly undesirable course for the police to adopt. It would be advisable that all the medical men applied to on such an occasion should answer that they are unable to make any statements to anyone as to matters affecting their patients. This is a general rule to which there must occasionally be exceptions arising out of the facts of particular cases.—ED. L.

MOTOR-CARS FOR MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—It is now some few years since I first wrote to THE LANCET on the subject of motor-cars in practice and I venture once again, in response to your invitation, to give the profession the results of my further experience.

First, I can cordially endorse the recommendation of the gentleman who advises that two cars should be kept. For the last two years I have had two cars in constant use and no horses. With the two my expenses for horse hire have been very low and I have always had a car to use; but the occasions on which both were available for a journey might be counted on the fingers, I had almost said on the fingers of one hand.

Next, I once again most emphatically beg of my brother practitioners to have nothing whatever to do with pneumatic tyres. They are the curse of motoring and absolutely and thoroughly unreliable. For an ordinary round they are all very well. To go to a consultation or an operation in them is to court disaster. Fortunately the current number of the *Autocar* enables me to quote figures in the recent "reliability" trials of six makes of pneumatic tyre:—

One	had a percentage of	46·15	"no trouble"	runs.
One	,,	,,	0·0	,,	,,
One	,,	,,	58·62	,,	,,
One	,,	,,	23·08	,,	,,
One	,,	,,	100	,,	,,
	(only one car on these tyres).				
One	,,	,,	66·67	,,	,,

I leave it for any of your readers to estimate the desirability of risking this percentage of trouble and hindrance. Should any of them wish to study the necessary labour of removing an outer tyre cover and repairing a punctured tube I can refer them to the section on tyre repairs in the Badminton Library book on "Motoring." I can assure them this, that after a most worrying and annoying delay they will be about tired out (no pun intended) and too filthy to visit their next patient, with dirty shirt-cuffs and probably some other spoilt clothing. There are some good cars on solid tyres and a considerable number which, in the language of the trade, are "not built to stand solid tyres." To sum up. (1) Very few motor-cars are worth having at all; and (2) no car which runs on pneumatic tyres *is* worth having at all. Of course, I speak of cars for professional and regular "work." As plaything cars they are another matter. There are some good articles worth study on modern motoring in recent numbers of the *Badminton Magazine*.

I am, Sirs, yours faithfully.

Stratford-on-Avon, Nov. 2nd, 1903. HARRY LUPTON.

To the Editors of THE LANCET.

SIRS,—I am anxious to start a light motor-car for my practice and should be glad if any fellow practitioner can help me in the choice of one. I live in a very hilly part of Cornwall, a few of the gradients being as steep as 1 in 3. The machine required must therefore be a first-rate hill climber above all things. I should like one which would usually carry two persons but having a removeable back seat which could be used if necessary. What horse-power would be required for the work and how well does a motor-car get on with snow on the ground; also can motor-cars be started on a hill without assistance? I shall be very grateful for any suggestions.

I am, Sirs, yours faithfully,

Oct. 27th, 1903. TRAMITE RECTA.

CRIPPLED CHILDREN'S CHRISTMAS HAMPERS.

To the Editors of THE LANCET.

SIRS,—May I once again ask the courtesy of your columns to remind your generous readers of the distribution of Christmas hampers to upwards of 6000 poor crippled children in the metropolis? These welcome gifts are despatched direct from the Guildhall by the Lord Mayor and Sheriffs on the morning of the day when, by permission of the Corporation, we entertain some 1200 ragged school children. His Majesty the King has again given a donation to the fund which it is my privilege to bring to the annual notice of the public. The Right Honourable General Sir Dighton Probyn, keeper of His Majesty's Privy Purse, writes me, Oct. 19th: "I am commanded by the King to send you the inclosed cheque for £10 10s. as a donation from His Majesty to the Poor Children's Banquet and Cripples' Christmas Hamper Fund which you so kindly organise on their behalf." I am hoping that this year we shall not only be able to say that we have denied no deserving applicant, but that we may have, as we had last year, a little balance in hand to meet those extremely pitiable cases in which a crutch, a cork leg, or the loan of an invalid chair is more welcome even than the hamper. All through the year the work (by the Ragged

School Union of registration, visitation, and relief continues or we could not undertake the hamper distribution on such a scale with the certainty that not one goes astray or falls into undeserving hands. The little cripple entertains the family and on a modest estimate the fund brightened the lives last Christmas of over 30,000 of the poor of London. I am in receipt of hundreds of most gratefully worded letters. Donations may be sent, as heretofore, to me, addressed Little Cripples' Christmas Hamper Fund, 69, Ludgate-hill, London, E.C. I am, Sirs, yours faithfully,

London, E.C., Oct. 31st, 1903. W. P. TRELOAR, Alderman.

P.S.—This is the tenth year of my fund and every year I have been increasingly successful.

BURGUNDY *v.* CLARET.

To the Editors of THE LANCET.

SIRS,—"A Man of Kent" states that "no wine can equal French burgundy" to produce "the desired effect either of recuperation or of blood making." I assume he has tested the effects of the best South Australian burgundies and I should like to know why he differs from the opinion of other medical men.

I am, Sirs, yours faithfully,

H. ALLERDALE GRAINGER,

London, Nov. 3rd, 1903. Agent-General for South Australia.

MEDICAL OFFICERS TO SCHOOL BOARDS.

To the Editors of THE LANCET.

SIRS,—I should be obliged for any information from medical officers of school boards respecting their duties and more particularly those concerned with special ophthalmic and aural work.

I am, Sirs, yours faithfully,

JOHN GRIMSHAW, M.D. Lond., &c.

142, Whetstone-lane, Birkenhead, Nov. 3rd, 1903.

THE GENERAL MEDICAL COUNCIL AND MEDICAL MEMBERS OF PARLIAMENT.

IN reference to a report which appeared in the *Evening News* of Nov. 3rd stating on the authority of the *Liverpool Post* that "the Medical Council has resolved to invite medical M.P.'s to co-operate with the Committee with a view to forming a medical and public health committee in Parliament," we are authorised by the Registrar of the General Council of Medical Education and Registration of the United Kingdom to announce that there is no truth in the statement.

THE BRITISH MEDICAL BENEVOLENT FUND.

THE following sums have been received in response to Sir William Broadbent's appeal:—

	£	s.	d.		£	s.	d.
Sir William Broadbent, Bart.	50	0	0	Dr. Mary Thorne	1	1	0
Miss Broadbent	5	0	0	Dr. Hector Robinson	1	1	0
Dr. H. De Tatham	25	0	0	Mr. E. H. Hicks	2	2	0
Dr. Edward Martin	1	1	0	Dr. Moon	5	5	0
Dr. I. Burney Yeo	5	0	0	Dr. Barkett	1	1	0
Dr. J. P. Stewart	1	1	0	Dr. R. J. Kerby	10	10	0
Mr Thomas Moreton	2	2	0	Dr. M. Greenwood	1	1	0
Dr. Price Williams	5	0	0	Dr. W. Andrews	0	10	0
Mr. M. Cuteliffe	1	0	0	Dr. M. J. Dolaje	1	1	0
				Mr. Rayley Owen	1	1	0

Dr. Satchell offers a donation of ten guineas on condition that 16 other donations of £5 each or eight of £10 each are received in response to the appeal before the end of December. The sums received do but little more than cover the amount already granted in relief and leave little to meet the demands outstanding which had to be postponed at the last meeting for want of funds, and make no provision for the applications which have been received since and which will increase in number as the winter approaches. Further help is urgently needed. Subscriptions and donations will be thankfully received by the treasurer, Dr. Samuel West, 15, Wimpole-street, W.

MUSICA LÆTITIÆ COMES, MEDICINA DOLORUM.

THOSE members of the medical profession who can find time to go to concerts—and there is no greater intellectual relaxation than to listen to really good music—will generally find their opportunity at Queen's Hall, Regent's-street, London, W. On Wednesday, Oct. 28th, Mr. Emil Paur conducted at a concert of which the chief items were the C minor symphony of Brahms, and a piano concerto by Mr. Emil Sauer, the part for the solo instrument being played by the composer. On Saturday, Oct. 31st, the first of the Symphony Concerts took place. A very fine performance was secured by Mr. Wood of Brahms's symphony in E minor with its masterly final movement. Other items were the delightful overture to Peter Cornelius's "Barber of Bagdad," an almost unknown work, two tone poems by Arthur Hervey, and the A minor piano concerto of Schumann with Miss Adela Verne in the chief part.

F. E. H.—Mild or anomalous cases of scarlet fever, the nature of which is unrecognised, have usually a large share in the spread of this disease during an epidemic. On the facts reported we think that the medical officer of health, in his endeavour to deal thoroughly with the outbreak in the village, was right in desiring to examine the suspected cases. It would have been better if he had been able to make his visits together with the medical practitioner; and we think that an attempt to do this should have been made, though in the country appointments for this purpose are difficult to arrange. In the present instance, where the medical officer of health is not in private practice, we do not think that the medical practitioner need object to the patients having been examined in his absence for the purpose indicated. In the matter of the correct diagnosis the facts are in dispute, and we are unable to give an opinion. In general we think that the occasions on which a medical officer of health would be justified in expressing to parents any doubt which he entertains as to the correctness of diagnosis in a case of infectious disease must be extremely few.

S. H. S.—A patient has a perfect right to change his or her medical man. It is courteous of the patient to inform the medical man who has been superseded of the change but there is no obligation to do so on the part of the patient who, as a layman, is not bound by medical etiquette. The position of the medical man called in to replace a brother practitioner is always a delicate one. He should not take over the case until his predecessor has definitely received instructions that his services are to be discontinued, and where he has been called to a case owing to the usual medical attendant being away from home he should explain the temporary nature of his services if this is not understood by the patient. But when the position has been regularised he can hardly refuse save in special circumstances, to attend a member of the public requiring his services. We do not think that the situation described by our correspondent is one that ought to lead to any unpleasantness whatever between professional brethren.

R. H.—We do not know whether there is any special printed form of the agreement mentioned by our correspondent, but if so we should think that any law stationer would provide one. The agreements in question are, however, generally drawn up in manuscript by a solicitor.

Irish.—Our correspondent might communicate with Mr. William Van Praagh at 11, Fitzroy-square, London, W., or with Mrs. Emil Behnke at 18, Earl's-court-square, London, S.W.

C.—Some of the works in question were sent to this office. Though they are doubtless well-intentioned we do not think that they are suitable for general distribution.

W. K., M.B.—There is no proof that the medical man in question is aware of the use which is being made of his testimonial. His attention might be called to it.

X. Y. Z.—There is none so far as we know.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (9th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (2 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Royal Free (2 P.M.), Guy's (1.30 P.M.).

TUESDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.), Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Royal Ear (3 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Soho-square (2 P.M.).

WEDNESDAY (11th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. George's (Ophthalmic, 1 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.) Metropolitan (2.30 P.M.), London Throat (9.30 A.M.), Cancer (2 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M).

THURSDAY (12th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.), Metropolitan (2.30 P.M.), London Throat, (9.30 A.M.), St. Mark's (2 P.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

FRIDAY (13th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing Cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), Ophthalmic (10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), London Throat (9.30 A.M.), Samaritan (9.30 A.M. and 2.30 P.M.), Throat, Golden-square (9.30 A.M.), City Orthopædic (2.30 P.M.), Soho-square (2 P.M.).

SATURDAY 14th.—Royal Free (9 A.M.), London (2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), University College (9.15 A.M.), Charing Cross (2 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Throat, Golden-square (9.30 A.M.), Guy's (1.30 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (9th).—MEDICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square W.).—8.30 P.M. Clinical Evening. Cases:—Dr. E. Wynter: (1) Mitral Disease with Pulmonary Regurgitation; (2) Spondylitis Deformans.—Dr. F. J. Poynton: Bilateral Facial Paralysis.—Dr. L. Jones and Mr. C. S. Kingston: Series of Cases of Rodent Ulcer and Malignant Disease treated by the Finsen Light and X Rays.—Dr. S. E. Dore: Cases of Lupus treated by the Finsen Light.—Mr. W. G. Spencer: Scirrhus of the Tongue (third year of exhibition).—Dr. B. Dawson: (1) An Abdominal Case for Diagnosis; (2) Carcinoma of the Stomach.

TUESDAY (10th).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Paper:—Dr. C. Riviere: The Anæmias of Infancy.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN (17, Bloomsbury-square, W.C.).—8 P.M. Papers:—Mr. E. White: Kino.—Mr. W. Garse: The Assay of Crude Cocaine.

WEDNESDAY (11th).—HUNTERIAN SOCIETY (London Institution, Finsbury-circus, E.C.).—8.30 P.M. Discussion on Appendicectomy. When and How it should be Performed (opened by Mr. H. L. Barnard). Mr. J. Berry, Mr. G. L. Cheatle, Mr. F. J. Steward, and Mr. J. Sherren will take part in the debate.

DERMATOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square, W.).—5.15 P.M. Demonstration of Cases of Interest.

SOUTH-WEST LONDON MEDICAL SOCIETY (Bolingbroke Hospital, Wandsworth Common).—8.45 P.M. Dr. F. F. Burghard: Modern Treatment of some of the Commoner Forms of Dislocation and Fracture.

THURSDAY (12th).—BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Purcell, Dr. Macnaughton Jones, and Dr. B. Fenwick. Cases by Dr. Hodgson and Dr. I. Parsons.

CHILDHOOD SOCIETY (Library of the Sanitary Institute, 72, Margaret-street, W.).—8 P.M. Lecture:—Mr. R. D. Pedley: Healthy Dentition, its Importance in Child Life.

FRIDAY 13th.—THE INCORPORATED SOCIETY OF MEDICAL OFFICERS OF HEALTH (9, Adelphi-terrace, Strand, W.C.).—7.30 P.M. Paper:—Dr. S. Davies: The Source of Infection in Tuberculosis.

BRITISH LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL ASSOCIATION (11, Chandos-street, Cavendish-square, W.).—Annual General Meeting. Papers will be read and Cases shown by the President (Dr. W. Wingrave), Dr. Lamb, Dr. F. Spicer, Dr. Kelson, Dr. Haslam and others.

CLINICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8.30 P.M. Papers:—Dr. F. E. Batten: A Case of Myositis Fibrosa.—Dr. G. Newton Pitt: A Case of Measles with Coma.—Dr. Pasteur: A Case of Pernicious Anæmia with Unusual Features.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (9th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Practical Surgery. (Second Lecture.)

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. T. C. Fox: Clinique. (Skin.) 5.15 P.M. Dr. J. Taylor: Common Forms of Paralysis in Children and Young Adults.

TUESDAY 10th.—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. R. H. Cole: Alcohol as a Cause of Insanity.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Dr. T. H. Green: Clinique. (Medical.) 5.15 P.M. Dr. J. Taylor: Common Forms of Paralysis in Children and Young Adults.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. Ferrier: Cases in the Wards.

GLASGOW OPHTHALMIC INSTITUTION (126, West Regent-street).—8 P.M. Demonstration of Ophthalmoscopic Cases, Stereoscopic and other Photographs, Pathological Specimens and Microscopic Slides. Clinical Evening:—Penetrating Wounds of the Eyeball. (Post-Graduate Course.)

WEDNESDAY 11th.—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Russell: Rheumatoid Arthritis.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. A. H. Tubby: Clinique. (Surgical.) 5.15 P.M. Mr. C. B. Keetley: Unreduced Dislocations.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST (Brompton).—4 P.M. Dr. Perkins: Pneumothorax.

THURSDAY (12th).—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Mr. Baldwin: Practical Surgery. (Third Lecture.)

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. Hutchinson: Clinique. (Surgical.) 5.15 P.M. Mr. H. L. Barnard: Intestinal Obstruction.

SAMARITAN FREE HOSPITAL FOR WOMEN (Marylebone-road, N.W.).—3 P.M. Dr. Leckyer: Hæmorrhage at and after the Menopause.

CHARING CROSS HOSPITAL.—4 P.M. Mr. Waterhouse: Demonstration of Surgical Cases. (Post-Graduate Course.)

THE HOSPITAL FOR SICK CHILDREN (Gt. Ormond-street, W.C.).—4 P.M. D. Still: Croup.

NORTH-EAST LONDON POST-GRADUATE COLLEGE (Tottenham Hospital, N.).—4.30 P.M. Mr. W. Edmunds: Surgical Diseases of Children. (First Lecture.)

FRIDAY 13th.—POST-GRADUATE COLLEGE (West London Hospital, Hammersmith-road, W.).—5 P.M. Dr. Reece: Dairies, Cowsheds, and Milk-supply.

MEDICAL GRADUATES' COLLEGE AND POLYCLINIC (22, Chenies-street, W.C.).—4 P.M. Mr. E. Clarke: Clinique. (Eye.) 5.15 P.M. Mr. E. P. Paton: Tuberculous Disease of the Knee-joint.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Queen-square, Bloomsbury).—3.30 P.M. Dr. R. Russell: Myelitis.

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(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 5th, 1903.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Rainfall.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Wet Bulb.	Dry Bulb.	Remarks at 8.30 A.M.
Oct. 30	29·71	S.W.	...	92	59	49	50	51	Cloudy
31	30·02	N.W.	0·24	87	57	42	41	45	Cloudy
Nov. 1	29·92	W.	...	77	54	45	50	52	Cloudy
" 2	30·15	S.W.	0·21	69	56	49	49	51	Cloudy
" 3	30·23	N.	...	73	57	51	51	52	Cloudy
" 4	30·40	N.E.	...	69	54	42	42	43	Hazy
" 5	30·60	N.E.	...	68	53	41	41	44	Overcast

During the week marked copies of the following newspapers have been received: *Daily Messenger (London and Paris), Times, Daily Chronicle, Daily Graphic, Star, Macclesfield Courier Supplement, Daily News, Hertfordshire Mercury, Southern Times and Dorset County Herald, Burnley and District Times, Westminster Gazette, Windsor and Eton Express, Manchester Guardian, City Press, Walsall Advertiser, Herts Advertiser, Reading Mercury, Mining Journal, Surrey Advertiser, &c.*

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